

The Milbank Memorial Fund
QUARTERLY

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CLARK COUNTY

CLARK COUNTY, MISSOURI
OFFICE OF THE CLERK
JANUARY 1, 1900

TO THE HONORABLE JUDGE OF THE
COURT OF CLARK COUNTY,
MISSOURI:

I, the undersigned, Clerk of the
Court of Clark County, Missouri,
do hereby certify that the within
copy is a true and correct copy
of the original as the same appears
on the records of the Court of
Clark County, Missouri.

WITNESSED my hand and the seal of
the Court of Clark County, Missouri,
this 1st day of January, 1900.

CLERK OF THE COURT

IN THIS ISSUE

A MAJOR objective of mental health organizations has been to increase public understanding of mental and emotional illness and to promote acceptance of treatment. Some of these organizations have provided a telephone referral service where persons may obtain advice and information about professional services in the community for treatment of these disorders. Such a telephone service was provided by the Brooklyn Mental Health Association. With its cooperation, a statistical study of the persons and problems served during an eleven-month period was made by the Milbank Memorial Fund. The findings of the study are reported by Melly Simon, Dorothy G. Wiehl, Katharine Berry, and Dr. Ernest M. Gruenberg in this issue of the *Quarterly* in an article entitled "Inquiries to a Mental Health Association Concerning Treatment Facilities."

Inquiries averaged about 110 per month and the service was used to find help for a wide range of complaints of persons of all ages, but the majority of the calls were concerned with children and adults under 40 years of age. Two-thirds of the callers described problems, such as disturbed behavior, excessive anxiety and fear, and sought advice about treatment resources; and one-third asked for referral to a facility giving a specific type of service. Thus, much judgment was required in making recommendations, and referrals were to many different types of resources.

A followup telephone call to a small sample of the cases (88 persons) made approximately one year or more after the initial inquiry indicated that about three-fourths of this group had applied for service at the referral resource, but 29 per cent of the applicants were not accepted. However, many not accepted by the suggested resource obtained treatment elsewhere and some

obtained treatment without having gone to the referral resource. Some treatment or service was reported for seven out of eight adults and for four out of five children. Five of the cases had been in a mental hospital and 62 had received outpatient psychiatric or guidance service.

• • •

Trends in mortality have been sharply downward in the United States for both the white and nonwhite population and, in recent years, the difference between age-adjusted rates for the two populations has been decreasing. Richard F. Tomasson of the Scripps Foundation for Research in Population Problems has compared the trends for sex-age specific groups of the white and nonwhite population in an article entitled "Patterns in Negro-White Differential Mortality, 1930-1957." The author finds that the decrease in the color differential has been proceeding far more rapidly among the male than among the female population, and that there are marked differences in the relative trends for specific age groups. Mortality rates for the leading causes of death among the Negro and white population also are examined. An increase in the differential for some organic diseases is noted, and the excess mortality among Negroes is found to be very great for hypertension, both with and without heart disease.

• • •

In this issue Leighton van Nort presents an interesting and provocative article "On Values in Population Theory." In the words of the author "It is the thesis of this paper that demographers have—on the whole—accepted the dominant values of our own Western Society in an uncritical fashion, and thus have felt little need for sociological perspectives on those values. To put the matter quite strongly, I allege that much of demographic theory is culture-bound. Its account of demographic reality rests in part on humanistic value-postulates derived from Western Culture." The author illustrates his case by reference to demographic transition theory and the approach of Western demographers to problems of underdeveloped areas.

INQUIRIES TO A MENTAL HEALTH ASSOCIATION CONCERNING TREATMENT FACILITIES

MELLY SIMON,¹ DOROTHY G. WIEHL,² KATHARINE BERRY,² AND
ERNEST M. GRUENBERG, M.D.²

AN important goal of mental health organizations is to increase public acceptance of treatment for emotional and mental disorders and, to this end, active campaigns are conducted to teach the public to recognize these disorders and to seek professional care. An awareness of a mental illness or of a personality or behavior problem may be aroused and an interest in treatment may be stimulated but the pathway to obtaining the proper professional service is not so clear to many people as it is in the field of medical care for physical illness. The great variety of problems included in the neuropsychiatric category, sometimes of an urgent nature and sometimes only vaguely recognized, together with lack of knowledge of available community services for specific problems frequently make it difficult for an individual to find his way to the proper service. To meet the need for advice and guidance concerning mental health facilities, some community mental health associations have provided a telephone referral and information service.

A study of the experience of the Brooklyn Mental Health Association with a telephone information service was sponsored jointly by the Brooklyn Mental Health Association and the Milbank Memorial Fund. This report is based on a tabulation of the records for all inquiries during the eleven months July, 1956, to May, 1957, and a followup call to a sample of the inquirers to find out whether recommendations had been followed and with what results. Except for very few, the requests for information were taken care of by one of us (M.S.), a psychiatric social worker with long experience. At the time

¹ Formerly with the Brooklyn Mental Health Association Information Service.

² Milbank Memorial Fund.

the service was being given, no study of the inquiries had been planned and the information recorded for each inquiry was that volunteered by the caller or elicited for the purpose of understanding the problems sufficiently well to make a proper recommendation. The data available on the records are described more fully below. Since considerable information had been recorded for nearly all the inquiries, this analysis of the inquiries was undertaken in order to obtain some statistical estimate of the frequency of different types of problems for which people sought advice. Such data on how the information service was being used would be helpful, it was thought, in evaluating the need for a telephone referral service.

Tabulations of the calls for advice, however, cannot reveal the element of great personal need often expressed nor the value to the caller of the advice received. Some calls, of course, are simple requests for a service, such as an evening psychiatric clinic or a low fee clinic, but more are for guidance and advice on what to do. In this latter group, the situations presented cover a wide range; there may be a threat of suicide or a complaint about the long waiting time for therapy after being accepted at a clinic. Before the statistics on inquiries and referrals are discussed, it may be helpful to point out some special qualities of a telephone service. Policy and judgment with regard to the value of a telephone referral service should take into account any special functions it may serve as well as the quantitative demand for referrals.

There are two aspects of a telephone service that make it different from clinic or agency services. First, it takes less motivation to pick up the phone and dial a number that one has heard about than to make the effort to choose a place to go, accomplish the necessary transportation, face a building, an elevator, a secretary or receptionist and finally be face-to-face with the person to whom one must talk. Second, the telephone contact that is so quickly and easily made has an anonymity and impersonal quality and in response to the simple question "What can I do for you?" the caller immediately pre-

sents the core of the problem. The answering professional is sympathetic and understanding and by giving encouragement and reassurance can establish a relationship which sustains the continuing confidence of the caller. It was a surprising experience to M.S. to learn how completely the public trusts the answering service. Unfaithful husbands and wives gave their names and addresses and others gave facts that could damage their personal security seemingly without worrying about being betrayed.

A telephone service is a challenge to the advisor who must be sensitive to diagnostic manifestations and quick to react to the caller's anxieties. An emergency situation is present only rarely, but frequently there is need to find a proper resource without delay. A few examples will show how this service was called on to advise and help the caller to solve a problem rather than simply to direct a person to a clinic or therapist.

Depression and contemplated suicide were discussed and the need for prompt action was indicated. For example, a frightened eighteen-year old young man asked for an analytically-trained Catholic psychiatrist who accepts the commands of his Church and is accepted by official Catholicism and will also accept instinctual deviations. This young man was a homosexual who became infected with syphilis. As a result of this, anal surgery had to be done and the surgeon, who was to be paid by the boy's mother, thought it wise to tell the mother the cause of the illness. She was threatening suicide from shame.

A Negro man and white girl from a coeducational university who were in love came to the office to ask about a psychiatrist for the girl's mother who threatened suicide if they married.

Relatives of patients in State hospitals often called with questions that should be answered either by the hospital physician or by the Social Service Department. The tremendous size of the hospitals seems to intimidate; and there is a need to help the relatives to relate to the hospital personnel, to discuss with them questions on discharge, rehabilitation, and after-care therapy.

Vocational problems were brought to the information service. A former U.S.A. flier who had an excellent combat record had a total breakdown in a highly competitive industrial plant. He did well in another job. Inquiries were made about finding employment for young schizophrenics, and about special training for persons of low I.Q. or for persons with some physical disability.

Worried, anxious mothers called to discuss their children's behavior and to get advice about whether psychiatric help was needed. Sometimes there was conflict between the parents over accepting psychiatric care that had been recommended for the child.

Quite a number of calls were from persons under treatment who were dissatisfied or finding the experience painful and wanting to escape. Usually some explanation of the therapy relieved their doubts. At times, the psychiatrist was called and told about the patient's difficulties.

For the population that used the telephone information service of the Brooklyn Mental Health Association, it is evident that referral to a resource where a specified service could be obtained was only one part of the help given to those who called. Equally important for many callers was the sympathetic understanding of the answering voice and the assurance given that they could be helped in finding a way to take care of their problem.

The present report is concerned chiefly with an analysis of the available information on characteristics and problems of the individuals for whom inquiries about care or service were made to the Brooklyn Mental Health Information Service (BMHIS) during the period July, 1956, to May, 1957. General inquiries about community resources that were not related to a specific individual have not been included. In addition, for a sample of inquiries, a follow-up call made to the inquirer from 8 to 19 months after the initial inquiry provides information on whether the recommendations were followed and what results were obtained.

INFORMATION RECORDED FOR INQUIRIES

For each inquiry, information was recorded on an office slip for the following items:

1. Name of inquirer and date of call.
2. Name of person about whom the inquirer called. This person will be termed the "case."
3. Address of the case.
4. Sex and age of case.
5. Relationship of inquirer to case.
6. Agency or person who referred the inquirer to the information service.
7. Information requested, such as name of a private psychiatrist or reduced fee clinic; or a description of the situation or problem for which a recommendation for care or service was being sought.
8. Disposition of case, i.e. where the inquirer was referred for service.
9. Present treatment status or history of care for the case. There was no question on the record slip for this information, but it was obtained, and recorded, for many cases as a means of evaluating the problem before referring to a particular resource.

The data available for the above items have been tabulated and are discussed with reference to the following aspects of the information service:

1. Inquirers: who called and who referred them to the BMHIS.
2. Population for whom a service was desired: sex, age and district of residence.
3. History of previous care for cases.
4. Type of care or service requested and nature of the problems leading to request.
5. Disposition of cases: types of community resources to which referrals were made or nature of recommendation.

1. SOURCE OF INQUIRIES AND REFERRALS

Inquiries for information were made for 1,166 persons during the eleven months included in this study. Regardless of the

number of telephone calls or interviews involved in completing referral or disposition of a case, an individual has been counted as one "case" with the exception of 24 persons for whom a second inquiry required a new referral. The initial contact was made by telephone in nearly all cases, but the 'phone call was followed by an office interview for 7.0 per cent of the cases. Inquiry was made by personal visit to the office for only 1.2 per cent of the cases. Type of inquiry for all cases was as follows:

	Number of Cases	Per Cent of Total
Total Inquiries	1,166	100.0
Telephone Only	1,070	91.8
Telephone and Office Visit	80	6.9
Telephone, Office Visit, and Letter	1	0.1
Office Visit Only	14	1.2
Letter	1	0.1

Relatives of the persons for whom care or advice was wanted make up the largest group of users of the BMHIS. As shown in Table 1, nearly one-half of the calls (47 per cent) were from relatives; and one-fourth of all calls were from parents. More than one-third of the calls (36 per cent) were made by the person who wanted help for himself, i.e., were self-calls.

Only a few inquiries were made by a physician or psychiatrist on behalf of a patient, 1.1 per cent of all calls. Also, an occasional inquiry came from an employer, lawyer, or church representative. Somewhat more often a "friend" called, 3.7 per cent of calls. It is probable that some of these were really self-calls.

Representatives of various social and health agencies called the information service to obtain advice about resources for care for specific cases and these comprised about 11 per cent of the calls to the information service. Social agencies of the service type were the most frequent users of the information service with 4.5 per cent of calls. Medical and psychiatric clin-

INQUIRER	NUMBER	PER CENT
TOTAL PERSONS ADVISED	1,166	100.0
Person with Problem	419	35.9
Relative: Total	548	47.0
Spouse	87	7.5
Parent	295	25.3
Son or Daughter	41	3.5
Other Relative	125	10.7
Other Non-Agency: Total	72	6.2
Physician or Psychiatrist	13	1.1
Church Representative or Lawyer	8	0.7
Employer	8	0.7
Friend	43	3.7
Agency: Total	127	10.9
Social Agency	52	4.5
School Representative	13	1.1
Public Health or Related Service	6	0.5
Industrial Clinic	5	0.4
Brooklyn Clinic—Psychiatric	11	0.9
—Medical	11	0.9
Outside Brooklyn—Psychiatric	6	0.5
—Medical	13	1.1
Court and Related Services	10	0.9

Table 1. Classification of person making inquiry about services.

ics in Brooklyn or other boroughs also asked advice on behalf of patients, and made 3.4 per cent of the calls.

Inquiries made by representatives of agencies are an incomplete measure of the use of the information service by these agencies. Many callers had been referred to the BMHIS by the social and medical agencies. Table 2 shows the referral source reported by the inquirer.

It is evident in Table 2, that Brooklyn hospitals and medical clinics referred many persons to the BMHIS and 17 per cent of the inquiries were from these sources, in addition to the 2 per cent of calls made directly from these clinics. Medical services outside Brooklyn referred about 9 per cent of the inquirers. In all, 30 per cent of the cases had applied to or received service from a medical or psychiatric resource before

AGENCY OR INDIVIDUAL REFERRING	REFERRAL SOURCE		NUMBER OF CALLS FROM AGENCY	TOTAL CALLS MADE OR REFERRED BY AGENCY	
	Number	Per Cent		Number	Per Cent
PERSONS ADVISED	1,166	100.0	127	627	53.8
Agency Call	127	10.9			
Agency Referral	500	42.9			
Kings County, Clinic or Hospital	111	9.5	4	115	9.9
Other Brooklyn Clinic or Hospital	89	7.6	18	107	9.2
Clinic or Hospital Outside of Brooklyn	103	8.8	19	122	10.5
Social Agency	92	7.9	52	144	12.3
Public Health or Medical Agency	50	4.3	6	56	4.8
School Representative	52	4.5	13	65	5.6
Union or Industrial Clinic	0		5	5	0.4
Court or Related Services	3	0.3	10	13	1.1
Community Organization, Non-service	118	10.1			
Psychiatrist—Private	20	1.7			
Relative, Friend or Acquaintance	71	6.1			
No One Referred, Publicity, etc.	215	18.4			
No Information	115	9.9			

Table 2. Agency or person referring inquirer to BMHA information.

calling the BMHIS. An additional 1.7 per cent were referred by a private psychiatrist or physician.

Eight per cent of the calls were by persons referred by a service-type social agency, in addition to the 4.5 per cent which were calls by an agency representative. Also persons associated with the schools in the City referred 4.5 per cent of the inquirers to BMHIS and called direct on behalf of an additional one per cent of the cases.

Thus, it appears that this information service of the Mental Health Association was used extensively by other agencies to assist persons with problems involving mental health in finding proper and available resources.

Those who called the BMHIS on their own initiative as a result of publicity, or other general information, constituted

SOURCE OF REFERRAL	TOTAL EXCEPT AGENCY	INQUIRER				
		Self	Spouse	Parent or Child	Other Relative	Other Non-Agency
NUMBER OF INQUIRERS REFERRED BY SPECIFIED SOURCE						
TOTAL	1,039	419	87	336	125	72
Publicity	215	76	24	70	24	21
Friend, Relative	71	26	4	26	11	4
School Representative	52	15	2	34	1	0
Public Health or Medical Agency	50	19	4	18	7	2
Kings County Hospital	111	71	7	21	10	2
Other Brooklyn Clinic or Hospital	89	40	10	21	16	2
Clinic or Hospital, Other Borough	103	55	10	24	10	4
Private Psychiatrist	20	12	0	7	1	0
Social Agency	92	24	5	49	10	4
Other—Miscellaneous	121	43	15	30	20	13
No Information	115	38	6	36	15	20
PER CENT OF INQUIRERS REFERRED BY SPECIFIED SOURCE						
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
Publicity	20.7	18.1	27.6	20.8	19.2	29.2
Friend, Relative	6.8	6.2	4.6	7.7	8.8	5.6
School Representative	5.0	3.6	2.3	10.1	0.8	0
Public Health or Medical Agency	4.8	4.5	4.6	5.4	5.6	2.8
Kings County Hospital	10.7	16.9	8.0	6.3	8.0	2.8
Other Brooklyn Clinic or Hospital	8.6	9.5	11.5	6.3	12.8	2.8
Clinic or Hospital, Other Borough	9.9	13.1	11.5	7.1	8.0	5.6
Private Psychiatrist	1.9	2.9	0	2.1	0.8	0
Social Agency	8.9	5.7	5.7	14.6	8.0	5.6
Other—Miscellaneous	11.6	10.3	17.2	8.9	16.0	18.1
No Information	11.1	9.1	6.9	10.7	12.0	27.8

Table 3. Referral source for inquirers having different relationships to person in need of care or service.

18 per cent of the inquirers. If persons who had been referred by non-service agencies, such as the Manhattan Mental Health Association and other information centers are included, and also some for whom no referring source was recorded, the number seeking guidance from the BMHIS without any known intermediate contact with a service resource would constitute 44 per cent of the inquirers.

Referral Source in Relation to Self-Calls and Others. Of the 419 persons who called about themselves, 42 per cent had been referred to BMHIS from a medical or psychiatric facility. (Table 3.) Presumably most of these had applied for or were

receiving treatment and were unacceptable for service or for continued service. Reasons for non-acceptance are not known, but 13 per cent were referred from facilities outside of Brooklyn and 17 per cent from Kings County Hospital where overcrowding of psychiatric clinics was the rule. Only 5.7 per cent of those making self-calls had been referred by a social agency and 18 per cent had not been referred by anyone.

When a spouse was the inquirer, the referral source for 31 per cent of the calls was a medical or psychiatric facility. Nearly 28 per cent of inquiries by a spouse were made to BMHIS as a result of publicity or general knowledge of the service, and another 17 per cent were directed to BMHIS by a non-service community organization.

A parent calling about a child or a child calling about a parent had been referred by a medical or psychiatric facility for only 22 per cent of the calls. Nearly 15 per cent were referred by a social agency and 10 per cent by a school representative.

In summary, the largest percentage of referrals from medical and psychiatric facilities was for the self-calls and the smallest percentage of referrals from this source was for inquiries by parents or children, that is, calls for service for the young and the old people and for inquiries by persons not related to the case. A relatively large percentage of the parents were referred by school or social service representatives. The maximum percentage of calls made without any referral by a service facility is found for the inquiries concerning a spouse. The percentage of non-referred calls also is high for those made by persons not related to the individual concerned.

2. CHARACTERISTICS OF THE CASES

Color. The cases, or persons for whom some type of help was sought, were white persons with the exception of possibly three or four.³ This information was not asked, but probably almost

³ About 12 per cent of the population of Brooklyn was nonwhite according to the 1957 Special Census.

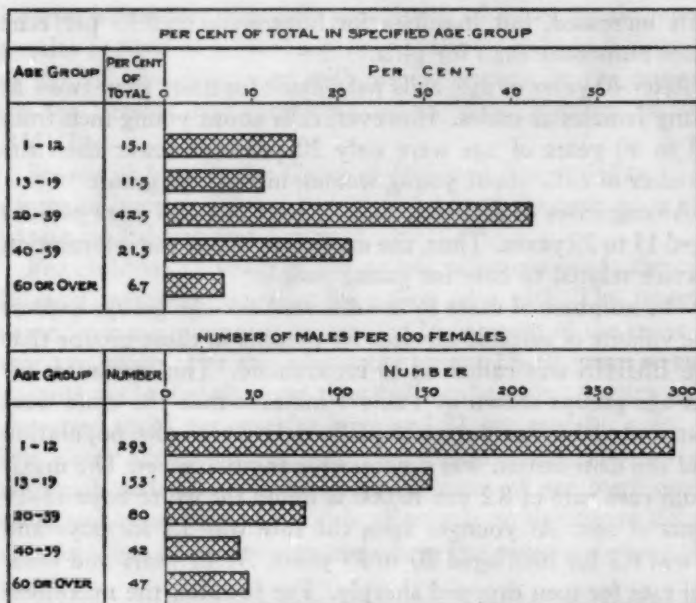


Fig. 1. Percentage age distributions of persons for whom inquiry was made at BMHIS, and the number of males per 100 females in each age group.

all Negro cases were identified in the course of discussing the case.

Sex and Age. Inquiries about facilities for care were for persons of all ages, ranging from the pre-school child to the very old. However, as shown in Figure 1, 43 per cent of the calls were on behalf of young adults 20-39 years of age and 27 per cent were for children or adolescents. Relatively few calls, only 7 per cent, were concerned with services for persons 60 years of age or older.

The numbers of calls about males and females did not differ greatly. Male cases were 85 per cent of the female cases, but this ratio varied widely at different ages, as shown in Table 4 and Figure 1. The greatest difference was for children aged 12 years or younger, and there were nearly three times as many calls about boys as about girls. During adolescence, calls about

girls increased, but inquiries for boys were still 53 per cent more numerous than for girls.

After 40 years of age, calls were made for more than twice as many females as males. However, calls about young men from 20 to 40 years of age were only 20 per cent fewer than the number of calls about young women in this age group.

Among cases of each sex, slightly over one-half were persons aged 13 to 39 years. Thus, the maximum use of the information service related to care for young people.

The numbers of cases in the different sex-age groups express the volume of suitable services for persons in these groups that the BMHIS was called on to recommend. The case rates for sex-age groups shown in Table 4 indicate that the cases were distributed by age very unequally relative to the population and the distribution was different for the two sexes. The maximum case rate of 8.2 per 10,000 is found for white boys 13-19 years of age. At younger ages, the rate was 5.4 for boys and it was 6.2 for men aged 20 to 39 years. At 40 years and older the rate for men dropped sharply. For females, the maximum rate was 7.1 at ages 20 to 39 years, and remained fairly high, 5.5 per 10,000, at ages 40 to 59 years. These rates cannot be

Table 4. Sex and age of cases for which advice was sought at the BMHIS, July 1956-May 1957.

AGE GROUP	NUMBER OF CASES			PER CENT OF ALL AGES IN SPECIFIED AGE GROUP			RATIO No. of M No. of F $\times 100$	ANNUAL RATE PER 10,000 WHITE POPULATION ²	
	Total ¹	Male	Female	Total	Male	Female		Males	Females
ALL AGES	1,166	531	623	100.0	100.0	100.0	85.2	4.7	5.3
12 Yrs. or Less	176	126	43	15.1	23.7	6.9	293.0	5.4	2.0
13-19 Years	134	81	53	11.5	15.3	8.5	152.8	8.2	5.3
20-39 Years	496	221	275	42.5	41.6	44.1	80.4	6.2	7.1
40-59 Years	251	74	177	21.5	13.9	28.4	41.7	2.4	5.5
60 and Over	78	25	53	6.7	4.7	8.5	47.2	1.8	3.6
Adults:									
Unknown Age	31	4	22	2.7	0.8	3.5			

¹ Sex was not reported for seven children and five adults of unknown age.

² Based on the white population of Brooklyn according to 1950 census, and adjusted to a twelve-month period.

interpreted as representing prevalence of cases in the community in need of help. They are of interest only as indication of the *relative* frequency with which persons in the various sex-age groups had problems which were brought to the BMHIS.

Source of Inquiry for Cases of Different Sex and Age. The source of inquiry differed by sex and age of the case, as is apparent in Table 5 and Figure 2.

For children 12 years of age or less, a parent made the call in most instances, whether for a boy or a girl. The inquiry came from a community agency for 16 per cent of the cases in this age group. For the adolescent group, 13-19 years of age, parents made slightly more than half of the calls. Agency calls increased to 28 per cent for boys and 21 per cent for girls. A few older adolescents of each sex called about themselves. Although calls about boys under 20 years of age were much more numerous than about girls, there was no significant difference between the sexes with respect to the persons making the inquiries.

At ages 20-39 and 40-59 years, the numbers of self-calls by women greatly exceeded those by men. Self-calls also were higher percentages of all calls about women in these age groups (58 and 56 per cent) than the percentages for self-calls among the male cases (43 and 39 per cent). Husbands called about their wives only in a few cases, but wives were the inquirers about husbands for 15 per cent of the male cases at ages 20 to 39 years and 32 per cent at ages 40 to 59 years. In the latter age group, other relatives inquired about care for 48 women compared with 7 inquiries by husbands. At all ages, not only did twice as many women as men seek information about services for themselves, but twice as many wives sought advice about services for their husbands as vice versa. Perhaps women are more willing to seek help or are more sensitive to a need for help in solving problems associated with personality and psychoneurotic disorders. Exclusive of self-calls, the number of men aged 20 to 59 years about whom inquiries were made

AGE AND SEX	TOTAL	INQUIRER—RELATIONSHIP TO CASE					
		Self	Spouse	Parent	Other Relative	Not Related	Agency
NUMBER OF CASES HAVING SPECIFIED INQUIRER							
TOTAL—BOTH SEXES	1,166	419	87	295	166	72	127
Males	531	137	59	191	50	25	69
Females	623	282	28	102	116	44	51
12 Years or Less							
Males	126	0	0	101	3	2	20
Females	43	0	0	36	0	0	7
13-19 Years							
Males	81	6	0	46	1	5	23
Females	53	3	0	31	6	2	11
20-39 Years							
Males	221	94	33	43	25	11	15
Females	275	160	15	34	31	18	17
40-59 Years							
Males	74	29	24	1	8	5	7
Females	177	100	7	1	48	14	7
60 Years or Older							
Males	25	7	2	0	13	1	2
Females	53	11	5	0	29	5	3
PER CENT OF CASES HAVING SPECIFIED INQUIRER							
TOTAL—BOTH SEXES	100.0	35.9	7.5	25.3	14.2	6.2	10.9
Males	100.0	25.8	11.1	36.0	9.4	4.7	13.0
Females	100.0	45.3	4.5	16.4	18.6	7.1	8.2
12 Years or Less							
Males	100.0			80.2	2.4	1.6	15.9
Females	100.0			83.7	0	0	16.3
13-19 Years							
Males	100.0	7.4	0	56.8	1.2	6.2	28.4
Females	100.0	5.7	0	58.5	11.3	3.8	20.8
20-39 Years							
Males	100.0	42.5	14.9	19.4	11.3	5.0	6.8
Females	100.0	58.2	5.5	12.4	11.3	6.5	6.2
40-59 Years							
Males	100.0	39.2	32.4	1.4	10.8	6.8	9.5
Females	100.0	56.5	4.0	0.6	27.1	7.9	4.0
60 Years or Older							
Males	100.0	28.0	8.0	0	52.0	4.0	8.0
Females	100.0	20.8	9.4	0	54.7	9.4	5.7

Table 5. Relationship of inquirer to cases classified by sex and age.

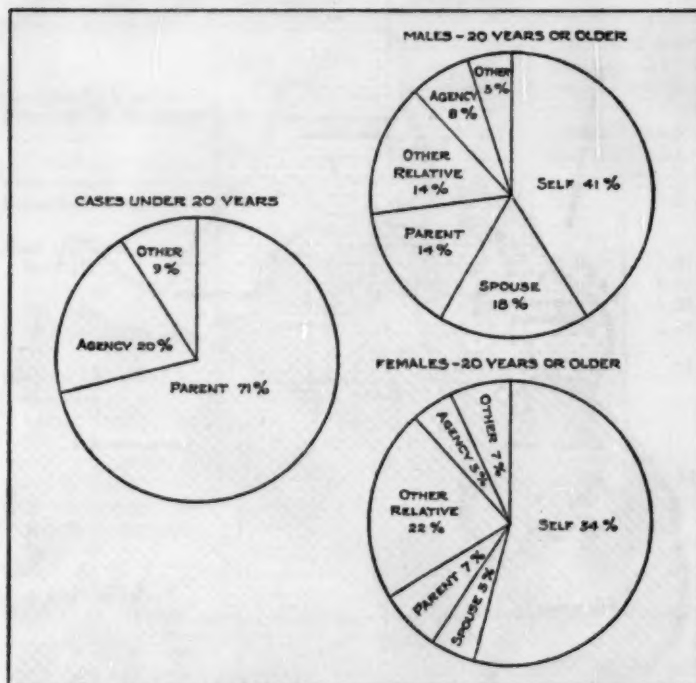


Fig. 2. Source of the inquiry made at BMHIS for all cases under 20 years of age and for male and female cases 20 years or older.

was nearly as large (172) as the number of women in this age group (192).

Inquiries for care for persons 60 years of age and older came about equally from the same sources for men and women; slightly more than one-half were from "other relatives," that is from sons, daughters, sisters, and brothers.

Residence of Cases. Inquiries were made on behalf of persons living in all parts of Brooklyn, but the distribution of cases by Health Center Districts indicates a wide disparity in use of the BMHIS, as is shown in Figure 3 and Table 6. The relative use of the information service for residents of the different Districts has been measured by computing the ratio of the percentage of all Brooklyn cases living in a specific District to the

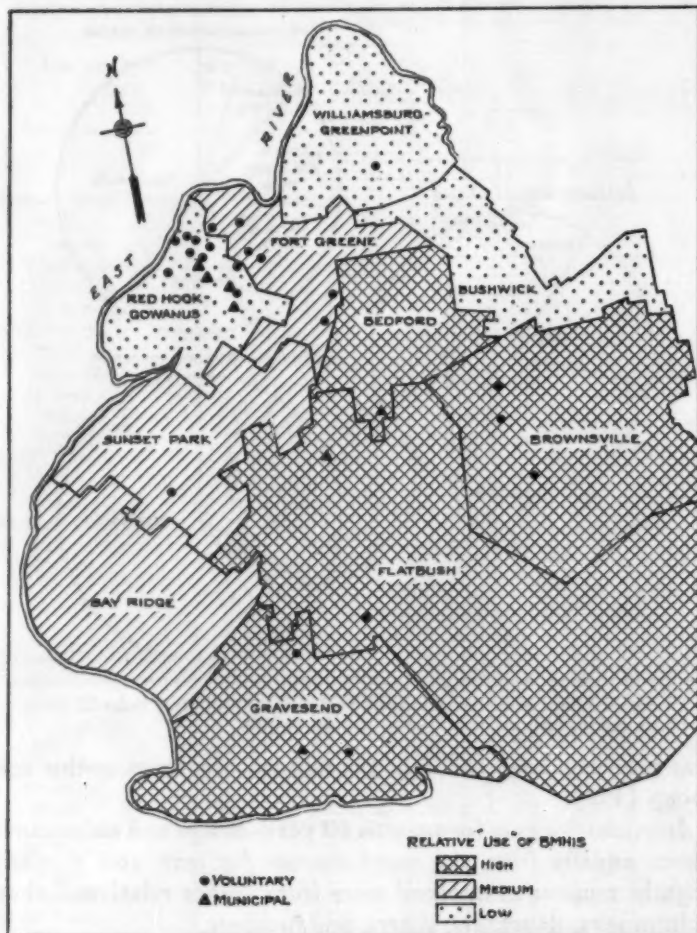


Fig. 3. Relative "use" of the information service by residents of different Health Center Districts in Brooklyn and location of community psychiatric services and social service agencies.

percentage of the white population of Brooklyn in that District. This ratio would be approximately 1.0 if the use had been about equal for different Districts, but the ratio varies from a low of 0.4 to a high of 1.8. Since the address was not given for

HEALTH CENTER DISTRICT IN BROOKLYN	CASES—KNOWN ADDRESS		CASES AFTER ALLOCATION OF UNKNOWN ¹		RATIO—PER CENT OF CASES TO PER CENT OF POPULATION	
	Number	Per Cent	Number	Per Cent	Known Address	Total— Est.
BROOKLYN RESIDENTS ²	964	100.0	1,124	100.0	1.0	1.0
High Use Dist.						
Bedford	103	10.7	123	10.9	1.81	1.85
Gravesend	171	17.7	194	17.3	1.45	1.42
Flatbush	257	26.7	293	26.1	1.31	1.28
Brownsville	119	12.3	136	12.1	1.16	1.14
Medium Use Dist.	203	21.1	239	21.3	.75	.76
Fort Greene	52	5.4			.83	
Sunset Park	61	6.3			.74	
Bay Ridge	90	9.3			.72	
Low Use Dist.	111	11.5	139	12.4	.50	.54
Wmsburg-Greenpoint	46	4.8			.60	
Red-Hook-Gowanus	31	3.2			.49	
Bushwick	34	3.5			.42	
Unknown Address	160					

¹ See footnote 4 for method used in allocating unknowns.

² For 42 cases, the address given was outside of Brooklyn.

Table 6. Distribution by Health Center Districts for Brooklyn residents and ratio of percentage of cases in each District to percentage of white population for the District, 1957 Census.

160 cases, or 14 per cent of all Brooklyn cases, a distribution of the cases with unknown address was made on the basis of the source of inquiry for the unknowns⁴ but this changed the ratios only slightly.

⁴ The 160 cases with unknown address were distributed to Health Center Districts by applying the percentage distribution by District for known addresses among inquiries from a specified source to the total inquiries from the same source for which an address was not given. For example, the 68 cases for which an agency had given no address were allocated to the Districts according to the percentage in a specified District among the 53 cases for which an address was given. Cases with unknown address were distributed separately for self-calls (28 unknown), parent calls (15), spouse or other relative (20), nonrelative (29), agency (68).

Cases with a specific inquirer allocated to each Health Center District were distributed among three age groups (under 20, 20-39, and 40 years or older) according to the age distribution of all cases with known age for the same inquirer. The 10 adults with age not reported for whom an address was available also were allocated to a specific age group. Since the age distribution varied greatly according to the inquirer, and the inquirer was always known, this method of distributing cases seemed to be the most valid.

The Health Center Districts are not homogeneous with respect to economic level, of course, but the ratios suggest broadly some association between socioeconomic status and use of the information service. The three "Low-Use Districts" are, in general, among the lowest rental areas. The "Medium-Use Districts" include much of the highest rental areas, but are very heterogeneous, and the socioeconomic status of the users of service is unknown.

Table 7. Source of inquiry and age distribution for cases with residence in the different Health Center Districts classified by Index of Use of BMHIS.

INQUIRER AND AGE OF CASE	HIGH USE DISTRICTS				MEDIUM USE DISTRICTS (.76) ¹	LOW USE DISTRICTS (.54) ²
	Bedford (1.85)	Graves- end (1.42)	Flatbush (1.28)	Brown- ville (1.14)		
SOURCE OF INQUIRY						
Total—Address Reported	103	171	257	119	203	111
Self	40	63	100	47	80	51
Spouse or Relative	46	98	138	63	102	41
Other or Agency	17	10	19	9	21	19
Total, Incl. Unk. Address ³	123	194	293	136	239	139
Self	43	68	107	50	86	55
Spouse or Relative	49	105	148	68	109	44
Other or Agency	31	21	38	18	44	40
Per Cent of Estimated Total by Specified Inquirer	100.0	100.0	100.0	100.0	100.0	100.0
Self	35.0	35.1	36.5	36.8	36.0	39.6
Spouse or Relative	39.8	54.1	50.5	50.0	45.6	31.7
Other or Agency	25.2	10.8	13.0	13.2	18.4	28.8
AGE OF CASES						
All Ages, Including Unknown Address or Age ³	123	194	293	136	239	139
Under 20 Years	31	52	79	40	59	35
20-39 Years	51	78	115	69	110	69
40 Years or Over	41	64	99	27	70	35
Per Cent of All Ages	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 Years	25.2	26.8	27.0	29.4	24.7	25.2
20-39 Years	41.5	40.2	39.2	50.7	46.0	49.6
40 Years or Over	33.3	33.0	33.8	19.9	29.3	25.2

¹ Includes Fort Greene, Sunset Park and Bay Ridge.

² Includes Williamsburg, Red Hook-Gowanus, and Bushwick.

³ See footnote 4 for method of allocating unknowns.

The four Districts with above average use are predominantly middle-to-low income housing areas. Thus, it appears that the BMHIS was used most by the middle income group and least by residents of the lowest rental districts, with the exception of the Bedford Health Center District which is a low-income area but had the maximum use, a ratio of 1.85.

In Table 7, the source of inquiry and age of cases in the different Districts are shown. A higher percentage of inquiries was from an agency or by someone not related to the case for residents of the "low-use" Districts and of Bedford District than for those in other Districts, and a lower percentage of inquiries was from relatives. The self-calls varied only from 35 to 40 per cent of the total for different Districts and the percentage was highest in the "low-use" Districts, and lowest in Bedford and Gravesend. The percentages of children or adolescents among cases from the different Districts varied only slightly. In the three Districts with the highest-use ratios, about 40 per cent of the cases were in the age group 20 to 39 years, and one-third were older. The percentage for young adults increased to 50 per cent in Brownsville, an above average "use" District, and in the "low-use" Districts; for older adults the percentages decreased. The age distribution of cases does not show a consistent pattern of differences related to the "use" ratios. With the exception of Bedford District, the "use" ratio increased consistently as the percentage of calls by relatives, including parents and spouses, increased and the percentage from an agency decreased. In the "high-use" Bedford District, the percentage of calls from an agency or non-related person was high and similar to that in the "low-use" Districts. The age distribution of cases in Bedford, however, differed from the low-use Districts and there was a higher percentage in the age-group 40 years or older.^a

No explanation of the great difference in use of the service by residents of different Districts is apparent. However, the mini-

^a Differences in age distribution for the cases may be largely the result of differences in the age distribution of the population of the Health Center Districts.

mal use from low-income Districts suggests a need to reach these groups with education about mental health problems and about ways to get help for them.

3. HISTORY OF TREATMENT

The information recorded about previous treatment or service probably identifies most of the persons who had had any care related to the problem presented. The care reported, how-

Table 8. Reported history of any previous treatment or service, and current or recent service received by persons for whom inquiries about care were made.

TYPE OF TREATMENT OR SERVICE REPORTED	NUMBER OF CASES			PER CENT OF TOTAL WITH SPECIFIED HISTORY		
	Both Sexes ¹	Male	Female	Both Sexes	Male	Female
All Past Service Related to Problem	1,166	531	623	100.0	100.0	100.0
Psychiatric Inpatient ²	54	24	30	4.6	4.5	4.8
Kings Co. or Other Temporary	22	9	13	1.9	1.7	2.1
History of Psychiatric Inpt. ³	155	61	94	13.3	11.5	15.1
Outpatient Psychiatric or Guidance	174	80	93	14.9	15.1	14.9
Psychiatric Clinic	47	23	23	4.0	4.3	3.7
Guidance Clinic	11	9	2	0.9	1.7	0.3
Private Psych. Unspec. ⁴	116	48	68	9.9	9.0	10.9
Psychological Service	27	16	11	2.3	3.0	1.8
Private Psychologist	8	6	2	0.7	1.1	0.3
Testing, I.Q., Aptitude	12	9	3	1.0	1.7	0.5
Spec. Schools, Vocational Rehab.	7	1	6	0.6	0.2	1.0
Medical Specialty and Other Med. ⁴	115	48	65	9.9	9.0	10.4
Inpatient Nursing Home, Conv., Aged	5	1	4	0.4	0.2	0.6
Social Welfare Agency	25	13	12	2.1	2.4	1.9
Other Community Service, Courts	9	4	4	0.8	0.8	0.6
None Reported, No Information	602	284	310	51.6	53.5	49.8
Current or Recent Service Rel. to Prob.	1,166	531	623	100.0	100.0	100.0
Psychiatric Inpatient ²	54	24	30	4.6	4.5	4.8
State After-Care Clinic	11	3	8	0.9	0.6	1.3
Psychiatric Clinic	24	14	9	2.1	2.6	1.4
Psychiatrist	64	24	40	5.5	4.5	6.4
Psychological, Testing Service	14	7	7	1.2	1.3	1.1
Medical Service	79	31	47	6.8	5.8	7.5
Social Welfare Agency	27	12	15	2.3	2.3	2.4
Other Community Agency	4	1	2	0.3	0.2	0.3
Applied for Care, Waiting	13	7	6	1.1	1.3	1.0
None or No Information	880	409	462	75.5	77.0	74.2

¹ Twelve cases with sex not reported are included.

² Includes prison, correctional institutions and schools.

³ Includes shock treatment and psychotherapy with source not specified.

⁴ Includes treatment for physical disabilities, epilepsy, mental retardation, speech and all medical conditions; also tranquilizers from doctor.

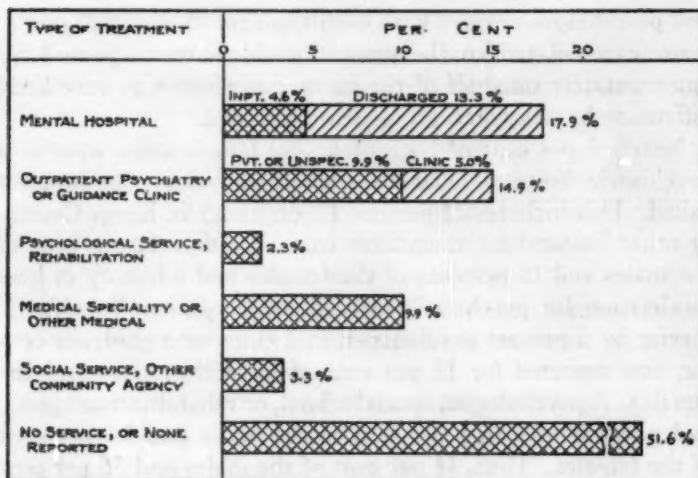


Fig. 4. Reported history of types of treatment or service received for the present problem of persons for whom inquiries were made.

ever, is not a complete history, but, in general, is that currently or recently received or that which the inquirer considered most relevant to the problem for which advice or referral was sought. Thus, a person in Kings County for psychiatric care at the time of inquiry or a patient with a record of hospitalization for mental illness may have had previous psychotherapy which would not be reported. The current care of discharged hospital patients probably was reported fairly completely. For other persons, history of out-patient care undoubtedly is incomplete. In spite of some under-reporting, the histories afford information of interest concerning the population for which help was sought from the information service.

In Appendix Table 1, the reported sources of any previous psychiatric care, or lacking that, of any other care, are shown in considerable detail together with the numbers of cases by sex and age receiving the care. The care may have been recent or several years ago but that most definitely identified with treatment for a mental illness is tabulated except when current or recent care is specified.

Types of care are grouped in broad categories in Table 8,

and percentages of cases with each type are shown in Figure 4. Some care related to the present problem was reported for approximately one-half of the cases, and there was very little difference by sex when all ages are grouped.

Nearly 5 per cent of both male and female cases were in a psychiatric hospital or institution at the time the inquirer called. This includes 22 persons (2 per cent) in Kings County or other hospital for temporary care. Another 11 per cent of the males and 15 per cent of the females had a history of hospitalization for psychiatric care. Some outpatient psychiatric service by a private psychiatrist, in a clinic or a guidance center, was reported for 15 per cent of both the males and the females. A psychologist, special school, or rehabilitation agency had given service to 3 per cent of the males and 1.8 per cent of the females. Thus, 34 per cent of the males and 36 per cent of the females had had some previous care which ranged from psychological testing or psychiatric consultation once or twice to hospitalization for many years.

Medical specialty service for problems such as epilepsy, cerebral palsy, physical disabilities, mental deficiency, etc., or general medicine was reported for 9 per cent of the males and 10 per cent of females. For about 3 per cent of the cases, a social or other community agency had given the only previous service reported for the current problem.

Recent or Current Treatment Reported. Many persons who had a history of some treatment apparently had not been under care in recent months, although the exact time of discontinuance of previous care usually was not recorded. As shown in Table 8, no recent care was reported for 75 per cent of the cases (77 per cent of the males and 74 per cent of the females). Only 13 persons, or 1.1 per cent of the total, reported that they had applied for care and were waiting to be notified of acceptance. In addition to the 5 per cent of cases who were inpatients at the time of inquiry, 8 per cent of the males and 9 per cent of the females had been going to a psychiatric clinic or seeing a private psychiatrist.

The recent care for the 155 discharged hospital or institutional patients is shown in Table 9. Nearly half of these (71 persons) had been discharged for two or more years, and recent psychiatric or rehabilitation service was reported for 20 per cent of this group. Among those discharged within the previous two years, 13 per cent had been attending State After-care Clinics and 14 per cent had had the services of a psychiatrist or a rehabilitation service. None of the men but a few women (8 cases) were under medical care or were clients of a welfare agency. Thus, most of the former hospital patients (80 per cent of the men and 66 per cent of the women) were not under any care at time of inquiry.

Previous Care by Sex and Age. Among children, aged 12 years or younger, very few had had any psychiatric care. For

Table 9. Current status for 155 cases with a history of care in a mental hospital or a correctional institution.

TREATMENT OR SERVICE REPORTED	All Discharged Patients			Discharged <2 Years			Discharged \geq 2 Years or Not Stated		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
NUMBER OF PATIENTS									
All Discharged Patients	155	61	94	84	32	52	71	29	42
State After-Care Clinic	11	3	8	11	3	8			
Psychiatric Clinic	7	3	4	4	2	2	3	1	2
Psychiatrist	14	3	11	6		6	8	3	5
Psychol., Rehab., Misc. ¹	5*	3	2*	2	2		3*	1	2*
Medical Service	4		4	3		3	1		1
Social Welfare Agency	4*		4*	2		2	2*		2*
None or Not Reported	111	49	62	56	25	31	55	24	31
PER CENT OF TOTAL									
All Discharged Patients	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
State After-Care Clinic	7.1	4.9	8.5	13.1	9.4	15.4			
Psychiatric Clinic	4.5	4.9	4.3	4.8	6.3	3.8	4.2	3.3	4.8
Psychiatrist	9.0	4.9	11.7	7.2		11.5	11.3	10.3	11.9
Psychol., Rehab., Misc.	3.2	4.9	2.1	2.4	6.3		4.2	3.3	4.8
Medical Service	2.6		4.3	3.6		5.8	1.4		2.4
Social Welfare Agency	2.6		4.3	2.4		3.8	2.8		4.8
None or Not Reported	71.6	80.3	66.0	66.7	78.1	59.6	77.5	82.8	73.8

¹ 2 cases (1 male and 1 female) under care of psychologist, 1 male each at Jewish Fed.

Emp. Service and at special school, and 1 female at Fountain House.

* One case had service from Fountain House and the Brooklyn Bureau for Social Service.

16 per cent of the boys and 12 per cent of the girls, some psychological or psychiatric service was reported; and 17 per cent of the boys and 9 per cent of the girls had been under medical treatment or care of a social agency, Table 10.

At ages 13-19 years, the proportions having a history of treatment were higher than at the younger ages, especially among girls. Eight of the 53 girls (15 per cent) and 7 of the 81 boys (9 per cent) had been or were at the time of the call inpatients of a psychiatric or correctional institution. Another 17 per cent of the girls and 19 per cent of the boys had had

Table 10. History of previous treatment or service for cases classified by sex and age.

HISTORY OF TREATMENT OR SERVICE	12 YEARS OR LESS		13-19 YEARS		20-39 YEARS		40-59 YEARS		60 YEARS AND OVER	
	M	F	M	F	M	F	M	F	M	F
NUMBER OF CASES										
TOTAL	126	43	81	53	221	275	74	177	25	53
In-Pt. Mental Hosp. or Inst.	2	0	3	4	16	9	2	12	1	4
Kings Co. or Other Temporary	2	0	1	2	6	4	0	4	0	3
History of Mental Hosp. or Inst.	2	1	4	4	41	39	11	35	3	11
Out-Pt. Psychiatric or Guid. Cl.	7	0	3	3	17	14	4	5	1	2
Private Psychiatrist or Unspec.	5	0	5	4	21	28	13	29	4	6
Psychologist Service or Testing	4	4	7	2	5	4	0	1	0	0
Medical Specialty, Other Medical	14	3	5	3	13	28	8	23	6	6
In-Pt., Nursing, Conv., Aged Homes	0	0	0	0	0	0	0	0	1	4
Social Welfare Agency	8	1	1	0	3	6	0	3	1	1
Other: Courts, Legal Aid, Church	0	0	3	1	1	1	0	2	0	0
None or No Information	84	34	50	32	104	146	36	67	8	19
PER CENT OF TOTAL WITH SPECIFIED SERVICE										
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In-Pt. Mental Hosp. or Inst.	1.6	0	3.7	7.5	7.2	3.3	2.7	6.8	4.0	7.5
Kings Co. or Other Temporary	1.6	0	1.2	3.8	2.7	1.5	0	2.3	0	5.7
History of Mental Hosp. or Inst.	1.6	2.3	4.9	7.5	18.6	14.2	14.9	19.8	12.0	20.8
Out-Pt. Psychiatric or Guid. Cl.	5.6	0	3.7	5.7	7.7	5.1	5.4	2.8	4.0	3.8
Private Psychiatrist or Unspec.	4.0	0	6.2	7.5	9.5	10.2	17.6	16.4	16.0	11.3
Psychologist Service or Testing	3.2	9.3	8.6	3.8	2.3	1.5	0	0.6	0	0
Medical Specialty, Other Medical	11.1	6.9	6.2	5.7	5.9	10.2	10.8	13.0	24.0	11.3
In-Pt., Nursing, Conv., Aged Homes	0	0	0	0	0	0	0	0	4.0	7.5
Social Welfare Agency	6.3	2.3	1.2	0	1.4	2.2	0	1.7	4.0	1.9
Other: Courts, Legal Aid, Church	0	0	3.7	1.9	0.5	0.4	0	1.1	0	0
None or No Information	66.7	79.1	61.7	60.4	47.1	53.1	48.6	37.9	32.0	35.8

some psychiatric or psychological guidance. For about 60 per cent of the teen age boys and girls, no previous service was reported.

Among the young men 20 to 39 years of age, 7 per cent were inpatients of a psychiatric hospital and 19 per cent were former patients. Among the women, 3 per cent were inpatients and 14 per cent were former hospital patients. Other psychiatric or psychological care was reported for 20 per cent of the men and 17 per cent of the women. At ages 40-59, the proportion of men with any previous care remained about the same as for the 20-39 year group, but the percentage with present or past hospitalization was somewhat smaller and with outpatient care larger. Among women there was an increase in percentages for both inpatient and outpatient cases. Only 38 per cent of women aged 40 to 59 gave no history of psychiatric care or medical or other care for their current difficulty.

At ages 60 and over, about two-thirds of the males and of the females had a history of some care. The proportion with psychiatric care was slightly higher for females than males, 43 per cent compared with 36 per cent; and medical care and other general service was higher for males, 32 per cent compared with 21 per cent.

Inquirer and Source of Referral According to Previous Care. As previously noted, inquiries about care for children and adolescents nearly always were made either by parents or were from an agency. For these two young age groups, the source of referral reported is given in Table 11 for cases with and without a history of care. The calls made by an agency representative or professional person have been classified as medical or social agency and included with personal calls made on referral from these resources. The "non-service agency" category is rather heterogeneous and includes public schools, colleges, and various community organizations and national associations that do not provide services. Referrals by friends or relatives are included in the no referral category.

Approximately two-thirds of the children had had no pre-

vious care and the inquirer reported no referral for 28 per cent of these and referral by a non-service source for 27 per cent. Social agencies had referred 31 per cent, and a medical resource only 13 per cent. In the teenage group, 61 per cent had had no previous care. Among these, referrals from a medical resource increased to 38 per cent, and social agency referrals were only 16 per cent. Apparently the parents of the teenage group were more likely to have consulted a medical resource about the problem than a social agency, but for the younger children the reverse is indicated.

Table 11. Source of referral to BMHS for inquiries about children and adolescents with and without a history of some care.

AGE GROUP AND PREVIOUS SERVICE REPORTED ¹	NUMBER WITH SPECIFIED REFERRAL ²						PER CENT WITH SPECIFIED REFERRAL					
	Total	Medical Resource		Soc. Ag.	Non-Serv. Ag.	None, Unk.	Total	Medical Resource		Soc. Ag.	Non-Serv. Ag.	None, Unk.
		Brk.	Others					Brk.	Others			
Age 12 Years or Less, Total	176	27	7	54	41	47	100.0	15.3	4.0	30.7	23.3	26.7
No Care	121	14	2	38	33	34	100.0	11.6	1.7	31.4	27.3	28.1
Any Care	55	13	5	16	8	13	100.0	23.6	9.1	29.1	14.5	23.6
Outpatient Psych. or Psychol. ³	21	2		5	5	9	100.0	9.5		23.8	23.8	42.9
Current or Recent Service	35	10	2	10	4	9	100.0	28.6	5.7	28.6	11.4	25.7
Outpatient Psych. or Psychol.	12	3		1	2	6	100.0	25.0		8.3	16.7	50.0
Medical	13	5	2	3		3	100.0	38.5	15.4	23.1		23.1
Social Service	8	1		5	2		100.0	12.5		62.5	25.0	
Ages 13 to 19 Years, Total	134	34	9	20	36	35	100.0	25.4	6.7	14.9	26.9	26.1
No Care	82	24	6	13	20	19	100.0	29.3	7.3	15.9	24.4	23.2
Any Care	52	10	3	7	16	16	100.0	19.2	5.8	13.5	30.8	30.8
Outpatient Psych. or Psychol. ⁴	24	5	1	2	7	9	100.0	20.8	4.2	8.3	29.2	37.5
Current or Recent Serv. ⁴	28	4	2	6	9	7	100.0	14.3	7.1	21.4	32.1	25.0
Outpatient Psych. or Psychol.	14	2	1	1	3	7	100.0	14.3	7.1	7.1	21.4	50.0
Medical	3	1	1		1							
Social Service	5			2	3							

¹ Categories of previous care are not mutually exclusive; for example, case may have recent medical service and also be in group with outpatient psychiatric care at some time in past.

² Inquiries by a psychiatrist, physician or from a hospital, clinic, or social agency are counted in corresponding category of referrals.

³ Includes all psychiatric service, psychological service, and testing and rehabilitation.

⁴ One case had service from a social agency and also psychiatric care.

For the few children and adolescents with recent medical care or service from a social agency, these resources had been the source of referral in the majority of cases. However, when a history of outpatient psychiatric or psychological service was given, there was either no referral or referral by a non-service agency for about two-thirds. For these few cases, a parent frequently was seeking advice about a change in treatment.

For adult cases 20 years of age or older who had a history of different types of treatment, the inquirer and source of referral are given in Table 12.

Table 12. Inquirer for persons aged 20 years or more with a history of different types of service or treatment and the source of referral to BMHIS of the inquirers.

HISTORY AND INQUIRER	NUMBER	PER CENT BY SPECIFIED INQUIRER	PER CENT ¹ OF CALLS WITH SPECIFIED REFERRAL ²					
			Total	Medical Resource		Social Serv. Agency	Other Comm. Ag.	No Referral Reported
				Brooklyn	Other			
Inpatient	44	100.0	100.0	6.8	11.4	9.1	13.6	59.1
Relative, Friend	42	95.5	100.0	7.1	7.1	9.5	14.3	61.9
Agency, M.D.	2	4.5			(2)			
Former Inpatient	140	100.0	100.0	28.6	7.1	7.1	10.7	46.4
Self	50	35.7	100.0	34.0	10.0	8.0	12.0	36.0
Relative, Friend	83	59.3	100.0	25.3	6.0	2.4	9.6	56.6
Agency, M.D.	7	5.0		(2)		(4)	(1)	
Outpatient Psych.	154	100.0	100.0	30.5	18.8	4.5	13.0	33.1
Self	87	56.5	100.0	35.6	19.5	4.6	11.5	28.7
Relative, Friend	62	40.3	100.0	22.6	16.1	3.2	16.1	41.9
Agency, M.D.	5	3.2		(2)	(2)	(1)		
Medical Care	89	100.0	100.0	36.0	24.7	6.7	12.4	20.2
Self	39	43.8	100.0	41.0	28.2	2.6	5.1	23.1
Relative, Friend	36	40.4	100.0	30.6	11.1	8.3	25.0	25.0
Agency, M.D.	14	15.7	100.0	35.7	50.0	14.3		
Social Agency	18	100.0	100.0	16.7	16.7	22.2	11.1	33.3
Self	8	44.4		(1)	(2)		(1)	(4)
Relative, Friend	5	27.8		(2)			(1)	(2)
Agency, M.D.	5	27.8			(1)	(4)		
No Previous	380	100.0	100.0	28.9	10.0	8.4	17.6	35.0
Self	217	57.1	100.0	33.2	8.8	5.5	16.6	35.9
Relative, Friend	139	36.6	100.0	20.9	11.5	7.9	20.1	39.6
Agency, M.D.	24	6.3	100.0	37.5	12.5	37.5	12.5	

¹ Per cent computed only if ten or more cases in group. Numbers in parenthesis are numbers of cases.

² See footnote 2, Table 11.

Inquiries about persons who were in a mental hospital were made by a relative with few exceptions. Only 27 per cent of the inquirers had been referred to BMHIS by a medical resource or social service agency.

Slightly more than one-third (36 per cent) of the former inpatients called about themselves. Approximately one-half of these self-calls were made to BMHIS on referral by a service agency, usually from a medical resource. Relatives or friends made 59 per cent of the calls about former inpatients and only one-third of them had been referred by a medical or social service agency.

Self-calls were more than one-half (57 per cent) of the inquiries about persons for whom previous outpatient psychiatric or psychological service was reported. Among those who called about themselves, 55 per cent had been referred by a medical resource, including psychiatric and psychological sources for care; and 5 per cent had been referred by a social service agency. When a relative or friend called about a person with previous psychiatric care, only 42 per cent of the inquirers reported referral by a medical or social service resource.

Self-inquiries were made by the same percentage of the persons with no history of care (57 per cent) and with history of outpatient psychiatric care, but a higher percentage of the no care group called without any referral from a service resource, 52 per cent compared with 40 per cent. Calls by relatives or friends were made without referral from a service resource for about the same percentage of the cases without any previous care and of those with previous outpatient psychiatric care.

In general, more than one-half of the persons with previous care who were seeking advice about obtaining some other service were referred to the BMHIS by a treatment facility or social service agency, but when relatives or friends inquired about service they were more likely to have called directly without having been referred from a service resource. Many of the referrals and calls from psychiatric or medical resources were made by services outside of Brooklyn.

4. NATURE OF INQUIRY-PROBLEMS PRESENTED

Although most of the inquiries at BMHIS were concerned with obtaining treatment or service for someone, the information recorded on the office slips indicates that in the majority of cases, the inquirer presented a problem or situation and wanted advice about treatment as well as a referral to a source of treatment. On the other hand, there were some who asked where they could obtain a specific type of treatment or service or wished to verify the qualifications of a specific resource. Usually some information about the problem was reported by inquirers asking for a specific service. In order to give as complete a picture as possible of the help given by the information service, the inquiries have been tabulated in two ways: first, according to the type of inquiry, or what was asked for; and second, according to the kinds of problems or situations for which advice or referral was needed.

Nature of Inquiry. The frequency of different types of inquiries is shown in Table 13. For 68 per cent of the cases, the inquirer described behavior or symptoms or some disturbing situation and asked where to get help. This percentage varied only slightly by sex and by age of the case, except that it decreased to 59 per cent for the age group 60 years or older due to a relatively large number of requests for information about nursing and other homes for the aged.

Another category of inquiries consisted of requests for information about where to obtain treatment for a person with a special problem. This was a small group, 6 per cent of the inquiries. These problems included chiefly mental retardation and deficiency, physical handicaps, speech difficulties, previously diagnosed cases of emotionally disturbed children and a few cases of alcoholism or drug addiction. There were more problem inquiries for males than for females, (8.3 compared with 3.4 per cent); and the percentage of "problem inquiries" was relatively high among children (15.7 per cent) and teenagers (9.6 per cent).

Some type of psychiatric service was specifically requested or information related to hospitalization was asked by approximately one-fourth of the inquirers. Only 3 per cent of calls concerned hospitalization, including institutional care for emotionally disturbed children. A private psychiatrist was requested by 4.0 per cent and a psychoanalyst by 1.4 per cent of the inquirers. Information about obtaining treatment at an outpatient clinic was asked by 5.1 per cent of the inquirers;

Table 13. Type of service requested by inquirers classified by sex and age of case.

NATURE OF INQUIRY	BOTH SEXES	MALE	FEMALE	AGE GROUPS					
				≤12	13-19	20-39	40-59	≥60	Unk.
				NUMBER OF CASES					
Total Cases with Inquiry Classified ^a	1,123	516	596	172	125	480	243	76	27
Hospitalization	36	11	24	2	3	14	10	4	3
Private Psychiatrist—Total	45 ^b	23	21 ^b	2	2	23	11 ^b	4	3
Reduced Fee	8	5	3	1	1	4	1	1	
Unspecified Psychotherapy	79	33	44	11	11	37	16	3	1
Outpatient Clinic	57	23	34	5	7	31	11		3
Psychoanalysis	16	10	6		1	14	1		
Psychological Service	9	5	4	2	5		2		
Shock Treatment	12	3	9			2	5	3	2
Group, Tranquillizers, Other	7	7			1	2	3		1
Nursing or Convalescent Home	25 ^b	10	15 ^b	2	1	1	5 ^b	16	
Verification of Resource	10	7	1	3	1	4		1	1
Problem Identified	67	43	20	27	12	19	6		3
Situation or Complaint Described	761	341	419	118	81	333	174	45	10
PER CENT OF TOTAL									
Total Cases	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hospitalization	3.2	2.1	4.0	1.2	2.4	2.9	4.1	5.3	11.1
Private Psychiatrist—Total	4.0	4.5	3.5	1.2	1.6	4.8	4.5	5.3	11.1
Reduced Fee	0.7	1.0	0.5	0.6	0.8	0.8	0.4	1.3	
Unspecified Psychotherapy	7.0	6.4	7.4	6.4	8.8	7.7	6.6	3.9	3.7
Outpatient Clinic	5.1	4.5	5.7	2.9	5.6	6.5	4.5		11.1
Psychoanalysis	1.4	1.9	1.0		0.8	2.9	0.4		
Psychological Service	0.8	1.0	0.7	1.2	4.0		0.8		
Shock Treatment	1.1	0.6	1.5			0.4	2.1	3.9	7.4
Group, Tranquillizers, Other	0.6	1.4			0.8	0.4	1.2		3.7
Nursing or Convalescent Home	2.2	1.9	2.5	1.2	0.8	0.2	2.1	21.1	
Verification of Resource	0.9	1.4	0.2	1.7	0.8	0.8		1.3	3.7
Problem Identified	6.0	8.3	3.4	15.7	9.6	4.0	2.5		11.1
Situation or Complaint Described	67.8	66.1	70.3	68.6	64.8	69.4	71.6	59.2	37.0

^a Excludes 43 cases with no information recorded for nature of inquiry or problem.

^b One case asked for both private psychiatrist and nursing home.

and somewhat more often (7.0 per cent) the request was for psychotherapy without specifying private or clinic or type. Out-patient psychotherapy was desired for an equal percentage of the male and female cases, 17.3 and 17.6 per cent.

A few inquirers wanted to know where to get shock treatment. Also a few persons called to ask about the qualifications of a specific facility.

There were 25 inquiries about a nursing or convalescent home or other residential resource. These were chiefly for persons over 60 years of age and were 21 per cent of all calls for this age group.

Problems, Complaints and Symptoms Described. The formulation of the complaint was recorded on the office form very nearly as it was stated by the inquirer. The kinds of problems described are shown in detail in Appendix Table II, and the problem reported or cause for seeking service is shown for all cases, if this was recorded, even though a specific service was requested. The great variety of complaints shown in this table is indicative of the wide range of problems and resources with which a person answering a telephonic referral service must be familiar.

A broad classification of the problems, symptoms, and situations described was developed after direct study of a large number of records and the cases have been grouped into ten general categories, as shown in Table 14 and in Figure 5. In addition, a special subgroup is shown which includes cases for which depression was indicated as a symptom or diagnosis regardless of the problem for which the inquirer was seeking help.

Three categories of problems accounted for 61 per cent of the inquiries; namely, behavior problems, (23 per cent), subjective sensations (21 per cent), and social and interpersonal relations (18 per cent). Other categories of problems for which symptoms or specific disorders were recorded included: somatized problems (6.3 per cent), physical problems (4.2 per cent), and movement disorders (4.1 per cent). For 7.5 per cent of the cases, a previous psychiatric diagnosis was reported or the case

Table 14. Percentage distribution according to problem or complaint among persons classified by sex and age.

GENERAL NATURE OF PROBLEM	ALL AGES	AGE GROUPS					Unk. Age
		12 Years or Under	13-19	20-39	40-59	60 Years or Over	
Both Sexes: Number ¹	1,123	172	125	480	243	76	27
Per Cent	100.0	100.0	100.0	100.0	100.0	100.0	
Behavior Problems	22.6	45.3	45.6	15.8	13.6	9.2	
Social or Interpers. Rel.	17.6	16.9	17.6	20.4	15.2	10.5	
Subjective Sensations	20.7	3.5	6.4	25.8	31.3	19.7	
Previous Psychiatric dx.	7.5	2.3	6.4	9.6	6.6	11.8	
Somatized Complaint	6.3	3.5	2.4	6.9	10.3	5.3	
Physical Problem	4.2	1.7	0.8	2.9	5.8	17.1	
Movement Disorder	4.1	16.3	2.4	1.9	2.5	0	
Psychiatric Referral or Adv.	12.6	9.3	16.8	14.4	8.2	5.3	
Residence Referral	2.3	0.6	0.8	0.6	2.9	18.4	
Financial, Legal Aid	2.0	0.6	0.8	1.7	3.7	2.6	
Depression Indicated ²	12.7	0.6	5.6	12.7	23.5	19.7	
Males: Number ¹	531	126	81	221	74	25	4
Per Cent	100.0	100.0	100.0	100.0	100.0	100.0	
Behavior Problem	30.2	48.4	51.3	19.9	16.9	8.0	
Social or Interpers. Rel.	16.7	14.5	11.8	19.9	18.3	12.0	
Subjective Sensations	14.0	1.6	5.3	19.0	28.2	20.0	
Previous Psychiatric dx.	7.4	3.2	7.9	11.1	5.6	0	
Somatized Complaint	4.5	3.2	3.9	3.7	11.3	0	
Physical Problem	4.5	1.6	1.3	3.7	4.2	32.0	
Movement Disorder	6.8	19.4	3.9	2.8	2.8	0	
Psychiatric Referral or Adv.	13.0	8.1	13.2	18.1	5.6	4.0	
Residence Referral	1.6	0	1.3	0.9	0	20.0	
Financial, Legal Aid	1.6	0	0	0.9	7.0	4.0	
Depression Indicated ²	6.4	0.8	3.9	6.9	16.9	8.0	
Females: Number ¹	596	41	49	264	172	51	19
Per Cent	100.0	100.0	100.0	100.0	100.0	100.0	
Behavior Problem	16.1	41.5	36.7	12.5	12.2	9.8	
Social or Interpers. Rel.	18.5	22.0	26.5	20.8	14.0	9.8	
Subjective Sensations	27.0	9.8	8.2	31.4	32.6	19.6	
Previous Psychiatric dx.	7.7	0	4.1	8.3	7.0	17.6	
Somatized Complaint	7.9	2.4	0	9.5	9.9	7.8	
Physical Problem	4.0	2.4	0	2.3	6.4	9.8	
Movement Disorder	1.7	7.3	0	1.1	2.3	0	
Psychiatric Referral or Adv.	11.7	9.8	22.4	11.4	9.3	5.9	
Residence Referral	3.0	2.4	0	0.4	4.1	17.6	
Financial, Legal Aid	2.3	2.4	2.0	2.3	2.3	2.0	
Depression Indicated ²	18.5	0	8.2	17.4	26.2	25.5	

¹ Excludes 43 cases—15 males, 27 females and 1 unknown sex—with no information recorded for nature of inquiry or problem.

² Included also in one of the problem categories.

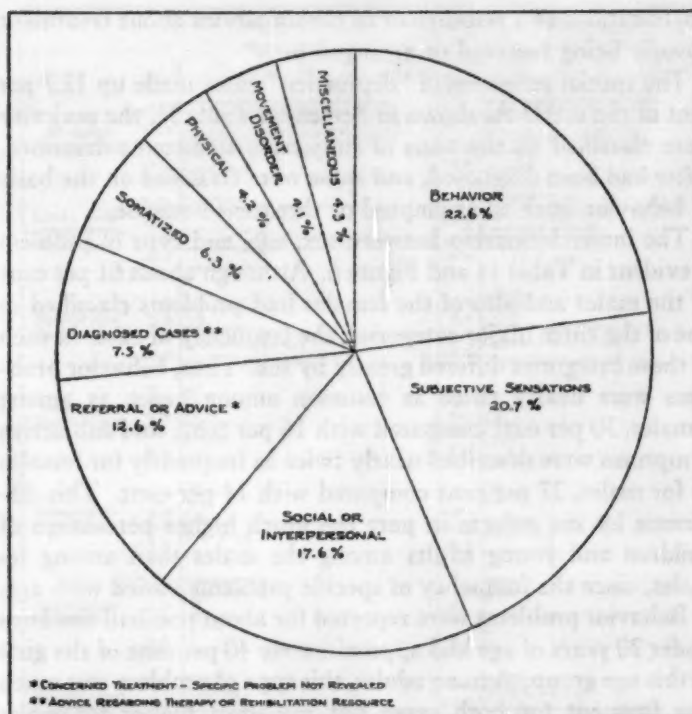


Fig. 5. Distribution of cases according to broad types of problems classified on the basis of symptoms, complaints or situations described.

was a former mental hospital patient in need of further treatment or was about to be discharged and the inquirer wanted advice about further treatment. For a small number of persons (2.3 per cent), the inquirer was seeking a home, such as a convalescent or nursing home, and treatment for a mental disorder was not involved in the request. Similarly a few calls, (2.0 per cent), were concerned chiefly with a need for financial, legal, or other assistance related to a patient situation. The remainder of the calls (12.6 per cent) could not be classified with respect to the underlying patient problem. In this latter category are requests for referral to a resource for a specific type of psychiatric service and also inquiries for the purpose of verifying the

qualifications of a resource or to obtain advice about treatment already being received or arranged for.

The special subgroup of "depression" cases made up 12.7 per cent of the total. As shown in Appendix Table II, the majority were classified on the basis of subjective symptoms described, a few had been diagnosed, and some were classified on the basis of behavior, such as attempted or threatened suicide.

The interrelationship between sex, age, and type of problem is evident in Table 14 and Figure 6. Although about 61 per cent of the males and also of the females had problems classified in one of the three major categories, the frequency of cases in each of these categories differed greatly by sex. Thus, behavior problems were nearly twice as common among males as among females, 30 per cent compared with 16 per cent; and subjective symptoms were described nearly twice as frequently for females as for males, 27 per cent compared with 14 per cent. This difference by sex reflects in part the much higher percentage of children and young adults among the males than among females, since the frequency of specific problems varied with age.

Behavior problems were reported for about one-half the boys under 20 years of age and approximately 40 per cent of the girls in this age group. Among adults, this type of problem was much less frequent for both sexes but remained higher for males except in the age group 60 years and over.

Situations involving social or personal relationships were reported for boys up to 20 years of age less frequently than for girls. For the latter, about one-fourth of the problems were in this category, a frequency nearly twice that noted for boys. However, among adults 20-39 years of age, the percentage of men and of women whose problems were concerned with interpersonal relationship was nearly equal and was one-fifth of the total. At older ages, the percentages for men were slightly higher than for women.

The symptoms or signs of emotional disturbance or mental disorder which were classified as subjective sensations were reported chiefly for or by adults. The symptomatic complaints in-

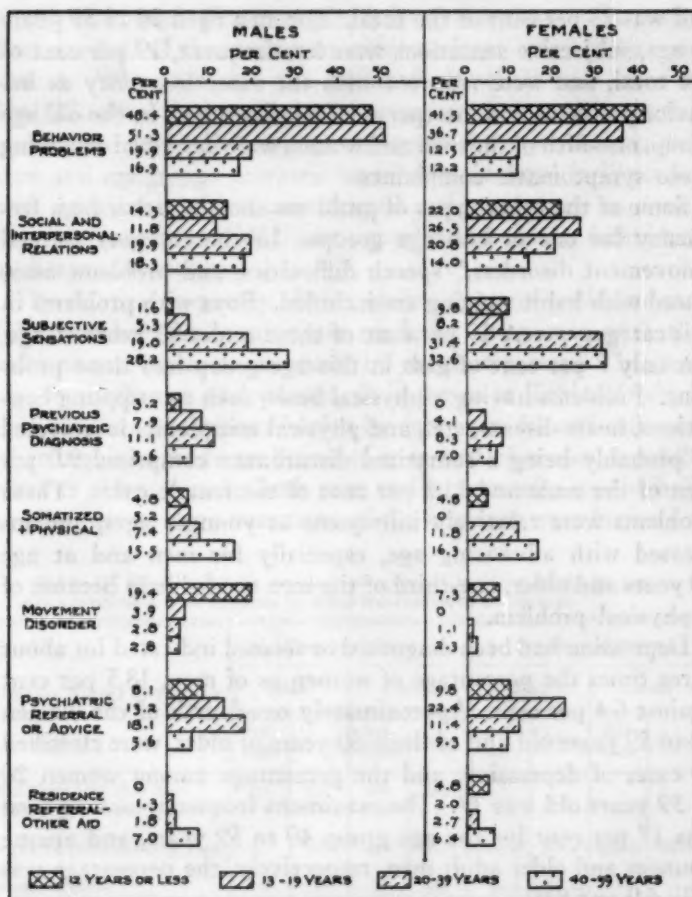


Fig. 6. Percentages of cases in a specific age group that were classified in the different broad categories of problems compared for age groups 12 years or less, 13 to 19 years, 20 to 39 years and 40 to 49 years.

cluded in this category ranged from fear, tension, and worry to ideas of persecution and suicide. Among women aged 20 to 60 years, this group of complaints comprised nearly one-third of the problems and was the largest category. Also, among men aged 40 to 60 years of age, it was the largest group of complaints

and was 28 per cent of the total. For men aged 20 to 39 years of age, subjective sensations were less frequent, 19 per cent of the total, and were reported with the same frequency as behavior problems and interpersonal relationships. In the old age group, one-fifth of the men and women were described as having these symptomatic complaints.

Some of the other types of problems show a rather high frequency for one or two age groups. In the category termed "movement disorders," speech difficulties, and problems associated with habit training are included. Boys with problems in this category, were 19 per cent of those under 13 years of age, but only 7 per cent of girls in this age group had these problems. Problems having a physical basis, such as crippling conditions, heart disease, etc., and physical complaints interpreted as probably being a somatized disturbance comprised 9.0 per cent of the male and 11.9 per cent of the female cases. These problems were relatively infrequent at younger ages, and increased with advancing age, especially for men and at age 60 years and older, one-third of the men needed help because of a physical problem.

Depression had been diagnosed or seemed indicated for about three times the percentage of women as of men, 18.5 per cent against 6.4 per cent. Approximately one-fourth of the women 40 to 59 years old and of those 60 years or older, were classified as cases of depression, and the percentage among women 20 to 39 years old was 17. The maximum frequency among men was 17 per cent for the age group 40 to 59 years, and among younger and older adult men, respectively, the percentage was only 6.9 and 8.0.

It should be emphasized that these figures on relative frequency of the different problems according to sex and for different age groups cannot be used as measures of relative incidence of the various conditions by sex and age in the population of the community. Many different factors are operating to direct a case to the attention of the telephone referral service and the selective effect of these factors with respect to the various prob-

lems is unknown. For example, it has been shown that more than one-half of the cases were referred from other service resources. Why was the case referred elsewhere and why to BMHIS rather than another service resource? Resources in this community tend to be very specialized with respect to types of cases and age groups accepted for service. Limited facilities for some problems and overcrowding of some resources, no doubt affect the use of the BMHIS by agencies and also by individual applicants for service.

The relative frequency of the various types of problems was different when the inquiry was made by the person with the problem and when it was made by another person. This was true for both men and women, as is shown in Table 15 which gives the percentage distribution by categories for self-calls and other inquiries made on behalf of men and of women aged 20 years or older. Among both men and women who sought help for themselves, the percentages of the inquiries were higher for

Table 15. Distribution by problem category of inquiries made by person with a problem and of inquiries by other individuals or an agency.

GENERAL NATURE OF PROBLEM	NUMBER OF CASES				PER CENT OF TOTAL			
	Male		Female		Male		Female	
	Self-Calls	Other	Self-Calls	Other	Self-Calls	Other	Self-Calls	Other
Total Cases Aged 20 or More	131	193	279	248				
No Information on Problem	4	4	10	11				
Total ≥ 20 Years, excl. Unk. Prob.	127	189	269	237	100.0	100.0	100.0	100.0
Behavior Problem	13	44	15	46	10.2	23.3	5.6	19.4
Social or Interpersonal Relationship	29	30	59	29	22.8	15.9	21.9	12.2
Subjective Sensations	33	33	93	60	26.0	17.5	34.6	25.3
Psych. Pt.—New Care	6	22	9	35	4.7	11.6	3.3	14.8
Somatized	9	7	33	13	7.1	3.7	12.3	5.5
Physical Problem	8	12	12	11	6.3	6.3	4.5	4.6
Movement Disorder	4	4	5	2	3.1	2.1	1.9	0.8
Psychiatric Referral or Advice	23	24	33	22	18.1	12.7	12.3	9.3
Residence Referral	0	7	2	15	0	3.7	0.7	6.3
Financial, Legal Aid	2	6	8	4	1.6	3.2	3.0	1.7
Depression Indicated ¹	8	21	43	63	6.3	11.1	16.0	26.6

¹ Included also in one of the problem categories.

Table 16. Percentage distribution by age for cases classified in broad categories of types of problems or complaints described.

GENERAL NATURE OF PROBLEM	TOTAL AGE KNOWN		PER CENT ¹ IN SPECIFIED AGE GROUP				
	Number	Per Cent	12 Years or Under	13-19	20-39	40-59	60 Years or Over
Both Sexes, excl. Unk. Prob.	1,096	100.0	15.7	11.4	43.8	22.2	6.9
Behavior Problem	251	100.0	31.1	22.7	30.3	13.1	2.8
Social or Interpers. Rel.	194	100.0	14.9	11.3	50.5	19.1	4.1
Subjective Sensations	229	100.0	2.6	3.5	54.1	33.2	6.6
Psych. Pt. or dx.—New Care	83	100.0	4.8	9.6	55.4	19.3	10.8
Somatized Complaint	71	100.0	8.5	4.2	46.5	35.2	5.6
Physical Problem	45	100.0	6.7	2.2	31.1	31.1	28.9
Movement Disorder	46	100.0	60.9	6.5	19.6	13.0	0
Psychiatric Referral or Adv.	130	100.0	12.3	16.2	53.1	15.4	3.1
Residence Referral	26	100.0	3.8	3.8	11.5	26.9	53.8
Financial, Legal Aid	21	100.0	4.8	4.8	38.1	42.9	9.5
Depression Indicated ²	141	100.0	0.7	5.0	43.3	40.4	10.6
Males, excl. Unk. Prob.	512	100.0	24.2	14.8	42.2	13.9	4.9
Behavior Problem	156	100.0	38.5	25.0	27.6	7.7	1.3
Social or Interpers. Rel.	86	100.0	20.9	10.5	50.0	15.1	3.5
Subjective Sensations	72	100.0	2.8	5.6	56.9	27.8	6.9
Psych. Pt. or dx.—New Care	38	100.0	10.5	15.8	63.2	10.5	0
Somatized Complaint	23	100.0	17.4	13.0	34.8	34.8	0
Physical Problem	22	100.0	9.1	4.5	36.4	13.6	36.4
Movement Disorder	35	100.0	68.6	8.6	17.1	5.7	0
Psychiatric Referral or Adv.	64	100.0	15.6	15.6	60.9	6.3	1.6
Residence Referral	8	100.0		(1)	(2)		(5)
Financial, Legal Aid	8	100.0			(2)	(5)	(1)
Depression Indicated ²	33	100.0	3.0	9.1	45.5	36.4	6.1
Females, excl. Unk. Prob.	577	100.0	7.1	8.5	45.8	29.8	8.8
Behavior Problem	94	100.0	18.1	19.1	35.1	22.3	5.3
Social or Interpers. Rel.	106	100.0	8.5	12.3	51.9	22.6	4.7
Subjective Sensations	157	100.0	2.5	2.5	52.9	35.7	6.4
Psych. Pt. or dx.—New Care	45	100.0	0	4.4	48.9	26.7	20.0
Somatized Complaint	47	100.0	2.1	0	53.2	36.2	8.5
Physical Problem	23	100.0	4.3	0	26.1	47.8	21.7
Movement Disorder	10	100.0	30.0	0	30.0	40.0	0
Psychiatric Referral or Adv.	64	100.0	6.3	17.2	46.9	25.0	4.7
Residence Referral	18	100.0	5.6	0	5.6	38.9	50.0
Financial, Legal Aid	13	100.0	7.7	7.7	46.2	30.8	7.7
Depression Indicated ²	108	100.0	0	3.7	42.6	41.7	12.0

¹ Per cent computed only if ten or more cases in group. Numbers in parenthesis are numbers of cases.² Included also in one of the problem categories.

the following problems than when someone else called: subjective sensations, social or interpersonal relations, somatized complaints, and referral to a specific psychiatric resource or advice about current or prospective psychiatric treatment. Smaller percentages of the self-calls were concerned with the following problems: behavior problems, care for psychiatric patients including discharged mental hospital patients, and residence referrals. Also, "other inquirers" made a larger percentage of their calls about cases of depression than did the self-callers, although a large percentage of the latter described their problems in terms of subjective sensations.

Age Distribution of Types of Problems. The numbers of persons having a particular type of problem may have shown little change at different ages, although the percentages among all cases at different ages may have varied due to an increase or decrease in other types of problems brought to the attention of the BMHIS. The percentage distribution by age for cases in each broad category of problems given in Table 16 shows the concentration of some types of problems within specific age groups for each sex.

The age distributions for the three largest groups of problems, and for the depressions, are shown in Figure 7.* For problems of social or interpersonal relations, for subjective sensations and also for the depression cases, the age distributions differed only slightly for the men and women. Problems of behavior show a marked concentration among boys and the teenage group with nearly 40 per cent of the cases under 13 years of age and one-fourth in the teenage group. Problems of this type described for women were much less concentrated at the younger ages, only 18 per cent were under 13 years of age, and the percentage of cases at ages 40 to 59 years remained fairly high, 22 per cent for women as against only 8 per cent for men.

* Percentages for children under 13 years of age and for those 13 to 19 years are shown separately in Figure 7 in order to show sex differences for these two age groups which may be of special interest. However, it should be remembered in comparing percentages for age groups that the age interval for younger children includes thirteen years of life as against only seven for teenagers.

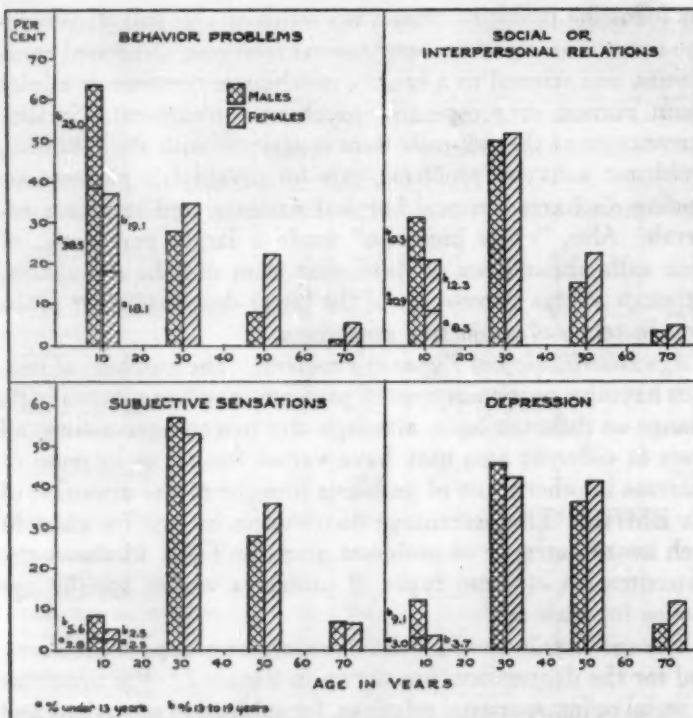


Fig. 7. Age distributions by sex of cases with problems of behavior, of social or interpersonal relations and of subjective sensations and of cases with the symptom of depression.

The age curves for persons whose problems involved social or personal relations show a very high concentration at ages 20 to 39 years for both men and women. A very similar concentration of cases in this age group is shown for the cases classified in the "subjective sensations" category. For the latter group, the percentage of cases decreased less at ages 40 to 59 years than the percentage among cases with problems of interpersonal relations. For both types of problems a higher percentage of women than of men were in the age group 40 to 59 years. Very few cases under age 20 years of age of either sex were in the "subjective sensations" category, but in the "interpersonal rela-

tions" category, 31 per cent were boys and 21 per cent were girls under 20 years of age.

It is noteworthy that the age distribution for men and women in the special category of "depression" cases differed only slightly, although the number of women was more than three times the number of men. Most of these cases were between 20 and 59 years of age. Under 20 years of age, the percentage for boys (12 per cent) was higher than for girls (4 per cent).

5. DISPOSITION OF CASE

The great variety of problems brought to the BMHIS obviously required the use of a wide range of resources in making referrals or recommendations for these persons. Furthermore, it was necessary not only to be able to interpret the situations described by callers, but also to be familiar with service policies of the available resources in order to give effective referral service, especially since the services of resources in this community are highly specialized as to problems and age of patients cared for. The list of resources used is much too long to be included here, but, for a detailed list of facilities classified by types of services, the numbers of referrals are shown in Appendix Table III according to sex and age of cases. However, for the purpose of discussion, the resources used have been grouped into a few broad categories, as shown in Table 17.

Two-thirds of the cases⁷ were referred to a private psychiatrist or a psychiatric or guidance clinic for outpatient treatment or diagnostic consultation. A private psychiatrist or an independent fee-charging clinic was recommended most frequently (25 per cent of cases); a community psychiatric clinic was recommended for 22 per cent of cases and a guidance clinic for 16 per cent. In a few cases, 2.5 per cent, a choice of outpatient psychiatric service was given the caller. However, many callers were given a recommendation for more than one resource

⁷ No service referral was made or none was recorded for 63 calls. Eleven were referred to other information agencies; the request was unrealistic or service unavailable for 7; suggested resource was not accepted by 9; advice, but no referral, was given for 7; calls for service referral were incomplete for 14; and the referral was not recorded for 15.

of the same type, but these are not included as a choice of service.

Disposition of the case involved inpatient psychiatric care for 90 persons, or 8.2 per cent of all cases. These included 51 persons for whom a recommendation of hospitalization was made by the information service. For the other 39 cases, the caller had turned to the information service for advice about hospitalization, especially to discuss whether to accept treatment in a State Hospital or to seek an alternative.

Only 26 per cent of the cases were given no referral or advice about psychiatric treatment. Types of referral for these were as follows: a rehabilitation service, psychological service or special school, 5.1 per cent; medical service, 6.2 per cent; hospital social service, 2.7 per cent; welfare or social service, 6.6 per cent; and other community resources, including nursing homes, 5.2 per cent.

Table 17. Types of referrals for cases for which inquiry was made at BMHIS.

DISPOSITION OR REFERRAL	PRIMARY REFERRAL FOR CASE		TOTAL REFERRALS TO SPECIFIED SERVICES ¹	
	Number of Cases	Per Cent of Total	Number of Referrals	Ref. per 100 Cases
TOTAL REFERRED OR ADVISED	1,103	100.0	1,223	110.9
Inpatient Psychiatric Care	90	8.2	90	8.2
Recom. Hospitalization:				
Kings Co. Admitting Off.	33	3.0		
Other Referral	18	1.6		
Discussed Hospital, Prev. Recom.	27	2.4		
Case Inpt.—Advice Given	12	1.1		
Priv. Psychiatrist, or Independent Cl.	280	25.4	280	25.4
Psychiatric Clinic	246	22.3	246	22.3
Guidance Clinic	175	15.9	175	15.9
Choice of Psychiatric Service (O.P.)	28	2.5	28	2.5
Psychological or Rehabilitation Serv.	56	5.1	85	7.7
Medical Specialty, or General Med.	68	6.2	80	7.3
Hospital Social Service	30	2.7	32	2.9
Social Service or Welfare Agency	73	6.6	125	11.3
Other Community Agencies	57	5.2	82	7.4

¹ Cases referred to specified type of service, whether for principal treatment or for supplementary assistance. Only one referral was counted when a choice of resources of same general type was given.

Any referral for psychiatric service was given priority in classifying cases by type of referral, and the service most directly related to care for a problem was considered primary for other cases. But, as shown in Table 17, 120 supplementary referrals were made, or about 11 per cent received more than one referral. The largest number of supplementary referrals was to a social service agency, and, including these, 11 per cent of the cases were advised to go to one of the family agencies in Brooklyn or to the Welfare Department.

Types of referrals for males and females are shown in Table 18 and it is evident that there was very little difference by sex. More of the males were referred for rehabilitation or psychological service, 7.8 per cent compared with 2.4 per cent of the females. This is because children were a larger proportion of the male cases and many of the young boys were referred for psychological service or to special schools. (See Appendix Table III.) A larger percentage of women than men were referred to a social agency or other community resource, including nursing homes and homes for the aged.

A small number of those inquiring about service were advised to return to the resource where care had been obtained previ-

Table 18. Types of referrals according to sex, and number of cases advised to return to resource previously used.

DISPOSITION OR PRIMARY REFERRAL	NUMBER OF CASES		PER CENT OF TOTAL		NUMBER REFERRED TO FORMER RESOURCE	
	Male	Female	Male	Female	Male	Female
Total Referred	503	590	100.0	100.0	22	26
Psychiatric Inpatient Treatment	37	52	7.4	8.8		3
Referred for Hospitalization	23	27	4.6	4.7		3
Advice	14	25	2.8	4.2		
Psychiatric Clinic, Medical	113	132	22.5	22.4	8	8
Priv. Psychiatrist or Ind. Clinic	133	145	26.4	24.6	4	5
Guidance Clinic	86	87	17.1	14.7	2	
Choice of Psych. O. P. Service	12	16	2.4	2.7		1
Miscel. Psych. or Psychol. Serv.	39	14	7.8	2.4	2	
Medical Referral	29	39	5.8	6.6	3	2
Hospital Social Service	11	18	2.2	3.1	2	3
Social Service or Welfare Agency	26	47	5.2	8.0	1	3
Other Community Agency	17	40	3.4	6.8		1

ously. Type of service for these cases is shown in Table 18. Only 4 per cent were referred to a previous resource; and the majority of these were persons who needed some explanation and reassurance to continue outpatient psychotherapy.

The type of psychiatric service to which persons were referred varied considerably by age of the case, although referrals

Table 19. Disposition of case by age for sexes combined.

PRIMARY REFERRAL	TOTAL	AGE GROUPS					
		≤12	13-19	20-39	40-59	≥60	Unk. Age
		NUMBER OF CASES					
Total Both Sexes	1,166	176	134	496	251	78	31
No Referral or No Record	63	6	11	24	10	6	6
Total Referred	1,103	170	123	472	241	72	25
Psychiatric Inpatient Treatment	90	7	8	41	27	5	2
Referred for Hospitalization	51	5	4	23	14	3	2
Advice	39	2	4	18	13	2	0
Psychiatric Clinic, Medical	246	15	18	131	64	11	7
Priv. Psychiatrist or Ind. Clinic	280	23	31	141	62	16	7
Guidance Clinic	175	78	34	46	15		2
Choice of Outpt. Psych. Service	28	4	2	14	8		
Miscel. Psych. or Psychol. Serv. ¹	56	16	14	17	7	1	1
Medical Referral	68	15	4	25	15	6	3
Hospital Social Service	30	1	1	15	11	2	
Social Service or Welfare Agency	73	9	7	25	25	4	3
Other Community Agency ²	57	2	4	17	7	27	
PER CENT OF TOTAL REFERRED							
Total Referred	100.0	100.0	100.0	100.0	100.0	100.0	
Psychiatric Inpatient Treatment	8.2	4.1	6.5	8.7	11.2	6.9	
Referred for Hospitalization	4.6	2.9	3.3	4.9	5.8	4.2	
Advice	3.5	1.2	3.3	3.8	5.4	2.8	
Psychiatric Clinic, Medical	22.3	8.8	14.6	27.8	26.6	15.3	
Priv. Psychiatrist or Ind. Clinic	25.4	13.5	25.2	29.9	25.7	22.2	
Guidance Clinic	15.9	45.9	27.6	9.7	6.2		
Choice of Outpt. Psych. Service	2.5	2.4	1.6	3.0	3.3		
Miscel. Psych. or Psychol. Serv. ¹	5.1	9.4	11.4	3.6	2.9	1.4	
Medical Referral	6.2	8.8	3.3	5.3	6.2	8.3	
Hospital Social Service	2.7	0.6	0.8	3.2	4.6	2.8	
Social Service or Welfare Agency	6.6	5.3	5.7	5.3	10.4	5.6	
Other Community Agency ²	5.2	1.2	3.3	3.6	2.9	37.5	

¹ Includes psychologists and psychological testing, psychiatric and vocational rehabilitation, and clinics and schools for special problems such as retarded, speech, alcoholism, addiction.

² Includes homes for aged, nursing homes, police, courts, Legal Aid Society, church organizations, recreational facilities and other community groups, such as the Red Cross or Salvation Army.

for some kind of psychiatric service were given to approximately the same percentage of persons in all age groups (73 to 79 per cent) except the group aged 60 years and over (44 per cent). As shown in Table 19, nearly one-half of the children and more than one-fourth of the teenage group were referred to guidance clinics, but only 10 per cent of persons aged 20 to 39 years were referred to guidance clinics. Private psychiatry was recommended for 22 to 30 per cent of each age group except the children for whom the percentage was 14. The percentage of persons for whom a mental hospital was recommended or discussed increased steadily from 4 per cent of the age group under 13 years to 11 per cent of the group 40 to 59 years of age. Among the relatively small group 60 years or older (72 persons), inpatient psychiatric care was advised for only 7 per cent but a large percentage (33 per cent) was referred to a resource for residential care.

These differences in referrals according to age reflect the asso-

Table 20. Referrals to different types of services for persons with problems or complaints of a specified category. Primary and other referrals included.

NATURE OF PROBLEM	No. OF CASES	REF. ¹ PER 100 CASES	PER CENT OF CASES GIVEN SPECIFIED REFERRAL						
			Hospital- ization	Outpt. Psych.		Psychol. or Rehab. Service	Medical Care of Hosp. S. S.	Social Agency	Other Civic Agency
				Priv. or Clinic	Guid- ance Cl.				
Total: Referral Known ²	1,103	110.9	8.2	50.2	15.9	7.7	10.2	11.3	7.4
Behavior Problem	241	109.1	8.7	43.9	26.1	10.0	2.9	11.2	6.2
Soc.—Interpers. Rel.	191	113.6	3.7	44.0	17.3	14.1	7.3	20.4	6.8
Subjective Sens.	224	108.5	12.1	62.5	12.1	1.8	5.8	9.8	4.5
Care—Previous Psych. dx. ³	83	116.9	15.7	60.2	3.6	8.4	13.2	8.4	7.2
Somatized Complaint	70	108.6	0	54.4	8.6	1.4	35.7	2.9	5.7
Physical Problem	46	123.9	6.5	43.4	2.2	15.2	37.0	8.7	10.9
Movement Disorder	46	104.3	2.2	47.8	30.4	4.3	15.2	4.3	0
Psychiatric Ref. or Adv.	126	104.8	10.3	60.3	15.1	9.5	6.4	0.8	2.4
Residence, Miscel.	47	123.4	4.3	17.0	4.3	0	12.8	36.2	48.9
Depression Indicated ⁴	138	108.0	20.3	54.3	8.0	0	8.0	13.8	3.6

¹ Referrals exceed the number of cases because a case may have been referred to more than one type of service.

² Total with referral known includes 29 cases with the problem not revealed.

³ Includes cases discharged or to be discharged from mental hospital for which further service was desired.

⁴ Included also in one of the problem categories.

ciation between age and type of problem that was discussed previously.

Table 20 shows the referrals and recommendations given for cases classified according to the problems and complaints described. Hospitalization was recommended for a relatively high percentage of persons in the subjective sensations category, 12 per cent; and hospitalization also was discussed for 16 per cent of cases with a previous psychiatric diagnosis and 10 per cent of those for whom the caller asked advice about specific psychotherapy. In addition, 60 per cent or slightly more of the persons in these categories were referred to outpatient psychiatric treatment services, not including guidance clinics. For the other problem categories, referral to an outpatient psychiatric service was somewhat less frequent and was given for 43 to 54 per cent of the cases except for those in the miscellaneous category for which these referrals dropped to only 17 per cent.

Referrals to guidance clinics were made for 30 per cent of those with movement disorders and 26 per cent of the behavior problem cases. Many of the children had problems in these categories. Also, 17 per cent of the persons with problems involving social or interpersonal relations were referred to guidance clinics. This category of problems included persons of all ages and referrals were distributed among all types of resources, including 14 per cent to psychological and rehabilitation services and 20 per cent to social service agencies.

RESULTS REPORTED FOR FOLLOWUP SAMPLE

A telephone followup was attempted for two selected groups of inquirers who called in October, November, or December, 1956. The two groups were: (1) persons who called about themselves and gave ages from 20 to 44 years; and (2) parents who called about children under 15 years of age. There were 69 self-calls and 51 parent-calls and a contact was made with a member of the family, not always the inquirer, for 49 self-calls (71 per cent) and for 41 parent-calls, 80 per cent.* The followup

* For 10 cases, one-third of those not followed, the necessary information was
(Continued on page 347)

information was obtained from 8 to 19 months after the initial inquiry, and for 84 of the cases at least one year had elapsed.

The self-call sample of 49 persons did not differ significantly from all self-calls by persons in this age group with respect to the distribution of problems and symptomatic complaints. The child sample of 41 parent inquiries for service also was similar to the total inquiries for this age group from non-agency sources, although these parents reported fewer behavior problems (44 per cent compared with 54 per cent), and reported more problems classified as "subjective sensations" or interpersonal relations, 29 per cent compared with 19 per cent. Thus, with minor differences, the problems of this sample of 90 calls may be considered typical of these two groups.

Information reported on followup indicates that some contact had been made with 74 per cent of the 92 resources to which 88 of the 90 cases had been referred.⁹ See Table 21 and Figure 8. However, 29 per cent of the applications made to the referral resource were not accepted. Refusals were much more frequent for the children (46 per cent) than for the adults (18 per cent). Nonacceptance for treatment was by outpatient psychiatric services or guidance clinics except for one refusal of service by a social agency.

Many who were not accepted by the suggested resource obtained treatment elsewhere, and others obtained treatment without having gone to the referral resource. Of the adults, seven out of eight reported some treatment or service; and care was reported for four out of five of the children.

Some persons who had an initial service from a referral re-

lacking. Two self-callers gave no name, three self-callers and two parents stated they had no phone, and two self-callers and one parent who gave no address or phone number were not listed in the telephone directory. Other cases not followed apparently had moved and could not be reached by telephone.

⁹ For two adults the calls were not completed and there had been no referral. One woman "wanted to talk with someone," but broke off the call and did not call back; on the followup call, she gave no information. One young man under treatment by a private psychiatrist who wanted less expensive treatment failed to make a repeat call to obtain a recommendation; on the followup call he reported that he had applied at several psychiatric clinics and had not been accepted, but still wanted psychoanalysis. These two cases are omitted in the tabulations of information obtained on followup of referred cases.

Table 21. Contact with and any service from referral resource reported at follow-up call for 88 cases.

CONTACT WITH REFERRAL RESOURCE AND SERVICES OBTAINED	NUMBER OF REFERRALS TO ANY RESOURCE			SPECIFIED REFERRAL GIVEN FOR CHILDREN AND ADULTS							
				Hospital Adv. or Discussed		Psychiatric Outpatient Serv.		Medical Service		Social Welfare, Other Civic Ag.	
	Total	<15	20-44	<15	20-44	<15	20-44	<15	20-44	<15	20-44
NUMBER WITH SPECIFIED SERVICE AND CONTACT											
Total Referrals ¹	92	41	51	2	2	34	36	2	8	3	5
Resource Contacted	68	28	40	1	2	24	30	1	5	2	3
Not Accepted	20	13	7			13	6				1
Not Contacted	18	11	7	1		9	4	1	2		1
Unknown Contact	6	2	4			1	2		1	1	1
Initial Service											
Referral Resource	46	13	33	1	2	9	24	1	5	2	2
Other Resource ²	31	20	11			19	8	1	2		1
Not Accepted at Referral											
Resource	14	10	4			10	4				
No Contact with Referral											
Resource	14	8	6			7	3	1	2		1
Unknown Contact											
Referral Resource	2	1	1			1	1				
No Service ³	11	7	4	1		6	3				1
Service and Contact											
Unknown	4	1	3			0	1		1	1	1
PER CENT OF TOTAL REFERRALS											
Total	100.0	100.0	100.0			100.0	100.0				
Resource Contacted	73.9	68.3	78.4			70.6	83.3				
Not Accepted (Per Cent of Contacts)	(29.4)	(46.4)	(17.5)			(54.2)	(20.0)				
Not Contacted	19.6	26.8	13.7			26.5	11.1				
Unknown Contact	6.5	4.9	7.8			2.9	5.6				
Initial Service											
Referral Resource	50.0	31.7	64.7			26.5	66.7				
Other Resource	33.7	48.8	21.6			55.9	22.2				
Not Accepted at Referral											
Resource	15.2	24.4	7.8			29.4	11.1				
No Contact at Referral											
Resource	15.2	19.5	11.8			20.6	8.3				
Unknown Contact,											
Referral Resource	2.2	2.4	2.0			2.9	2.8				
No Service	12.0	17.1	7.8			17.6	8.3				
Service and Contact											
Unknown	4.3	2.4	5.9				2.8				

¹ Two adults with no referral are omitted. Four adults were referred to two resources so that there were 92 specific referrals for 88 cases.² Includes 1 case with contact at referral resource who could not afford the service.

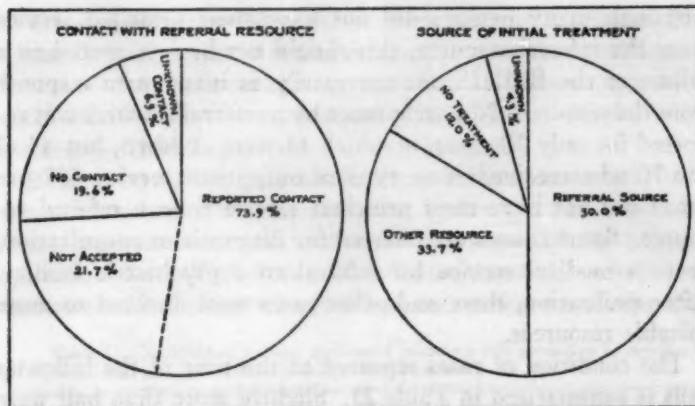


Fig. 8. Percentage of suggested resources that were contacted by cases and the percentages of cases that received some initial service at the referral resources, other resources or no service.

source, and also some who went to another resource, were transferred or stopped treatment and sometimes sought another service. The various steps taken before the principal treatment was received cannot be described. However, the principal type of treatment reported, with preference given to psychiatric care, is shown in Table 22 and classified as to whether it was received from a referral or other resource.

It is noteworthy that five of the 86 cases had been in a hospital in the interim, and three were still inpatients. Hospitalization had been advised for three of them; one had been referred for outpatient psychiatric care and one for medical care. Outpatient psychiatric or guidance service was reported for 62 cases but only one-third of these were treated at the referral resource. It is of interest that only two of the 24 cases referred to a guidance clinic received treatment at the clinic to which referral was made. For six cases, medical care was the primary service and four were treated where referred, although one case had been referred also for outpatient psychiatry and was not accepted for that service; and three cases received service from a community agency, of which two were the referral resource.

Although many persons did not have their principal service from the referral resource, this should not be interpreted as a failure of the BMHIS nor necessarily as inadequate response from the resource. Nonacceptance by a referral resource was reported for only 20 cases, of which 13 were children, but 44 of the 70 who received some type of outpatient service (63 per cent) did not have their principal service from a referral resource. Some cases were referred for diagnosis or consultation, or to a medical service for referral to a psychiatric facility. After evaluation, these and other cases were directed to more suitable resources.

The condition of cases reported at the time of the followup calls is summarized in Table 23. Slightly more than half were reported as improved, but the condition was not reported for 20 per cent, and some of these may have been improved. Since

Table 22. Type of service received by 86 referred cases.¹

TYPE OF SERVICE REPORTED AT FOLLOWUP CALL	ALL CASES		NUMBER WITH SPECIFIED SERVICE RECOMMENDED					
	No.	Per Cent	In-patient	Outpatient		Medical Care	Social Agency	Other
				Psych.	Guid.			
Total Cases	86	100.0	4	45	24	8	4	1
No Service	10	11.6	1	2	6		1	
Not Accepted	5	5.8			4		1	
Could Not Afford	1	1.2		1				
Did Not Go	4	4.6	1	1	2			
Inpatient Mental Hospital	5	5.8	3	1		1		
Still Hospitalized	3	3.5	2	1				
Discharged	2	2.3	1			1 ^b		
Psychiatric Outpatient	62	72.1		41	17	3	1	
Referral Resource	21	24.4		19	2			
Discont. Service	6	7.0		5	1			
Other Resource	41	47.7		22	15	3	1	
Discont. Service	3	3.5		2	1			
Medical Service	6	7.0		1		4	1	
Referral Resource	4	4.6		1 ^c		3		
Other Resource	2	2.3				1	1	
Social Welfare, Other Ag.	3	3.5			1		1	1
Referral Resource	2	2.3					1	1
Other Resource	1	1.2			1			

¹ Two cases with no report on service have been excluded.

^b One case with no information as to whether discharged or left against advice; patient is still depressed and under treatment with a psychiatrist.

^c One case with a multiple referral for outpatient psychiatry and for medical service was not accepted for psychiatry but had medical service at the resource suggested.

this is either a self-evaluation or evaluation by a relative, presumably improvement indicates more acceptable functioning. In some cases, the disturbing situation had been completely resolved. For approximately one-fifth of the cases, the informant reported no improvement in condition.

Except for the six persons discharged from treatment, all of whom were improved, there was no significant association between current treatment status and the reported condition of the case. One-half of those still under treatment were improved and one-half of those who had had no service were improved.

Table 23. Condition of patient at time of follow-up call according to services reported and current status with respect to treatment.

TYPE OF SERVICE REPORTED AND CURRENT TREATMENT STATUS	NUMBER OF CASES				PER CENT OF TOTAL			
	Total	Imp.	Not Imp.	Unk. Imp.	Total	Imp.	Not Imp.	Unk. Imp.
Total Cases Followed ¹	86	53	16	17	100.0	61.6	18.6	19.8
Service Unknown	1	1						
Total Services Known	85	52	16	17	100.0	61.2	18.8	20.0
Inpatient Psychiatric	5	3	1	1				
Outpatient Psychiatric	61	38	12	11	100.0	62.3	19.7	18.0
Medical	6	3	1	2				
Social Agency	2	2						
No Service	11	6	2	3	100.0	54.5	18.2	27.3
Current Treatment Status								
Under Treatment	41	21	10	10	100.0	51.2	24.4	24.4
Inpatient Psychiatric	3	2		1				
Outpatient Psychiatric	35	18	9	8	100.0	51.4	25.7	22.9
Medical	2		1	1				
Social Agency	1	1						
Discharged	6	6						
Inpatient Psychiatric	1	1						
Outpatient Psychiatric	4	4						
Medical	1	1						
Discontinued Treatment	10	5	4	1	100.0	50.0	40.0	10.0
Inpatient Psychiatric	1		1*					
Outpatient Psychiatric	9	5	3	1				
Current Treatment Not Stated	17	14		3	100.0	82.4		17.6
Outpatient Psychiatric	13	11		2	100.0	84.6		15.4
Medical	3	2		1				
Social Agency	1	1						

¹ Excludes 2 cases referred to Legal Aid Society for which status of problem was unknown.

* Includes 1 case no longer hospitalized, but unknown whether discharged or left; presently being treated by psychiatrist.

SUMMARY DISCUSSION

Information recorded about inquiries made to the telephone information service of the Brooklyn Mental Health Association was tabulated to describe the characteristics of the population served and the types of problems and individual complaints presented to the answering informant for advice or referral for service.

Inquiries on behalf of 1,166 persons were made during an eleven-month period, July, 1956, through May, 1957. Nearly one-half (47 per cent) of the calls were from relatives, including parents who made 25 per cent of the calls to obtain advice about care for young children or teenagers. More than one-third of the calls (36 per cent) were made by persons who wanted help for themselves. A small number of calls (6.2 per cent) came from friends, physicians, or other individuals not related to the person for whom a service was needed. For the other 11 per cent of cases, the inquiry came from a social service agency or from a medical or other community service resource.

Although a limited number of calls were made by representatives of community agencies, 43 per cent of the callers had been referred to the telephone information service by a service resource. There is no information available as to the selection of cases referred and not advised directly. Many of these probably had been turned away as not acceptable by the agency and the inquiry at the information service was one more step in a search for a treatment resource. In this community, service resources tend to be highly specialized with respect to the age of the patient, type of treatment, or type of problem treated. This telephone service was called on to give information about resources for every kind of problem for persons in every age group.

Children and adolescents comprised 27 per cent and adults in the age group 20 to 39 years were 42 per cent of the population served. Only a few calls (7 per cent) concerned service for persons 60 years of age or over. Among children aged 12 years or younger, boys predominated nearly 3 to 1. The sex-ratio

dropped with advancing years and over the age of 40, more than twice as many calls were about women as about men.

When related to the white population of Brooklyn, (only 3 or 4 calls were about nonwhite persons), the annual rate per 10,000 population is 4.7 for males and 5.3 for females. Rates by sex and age show a maximum for boys 13 to 19 years of age, 8.1 compared with 5.3 for girls of this age; and the second highest rate is 7.1 calls per 10,000 females aged 20-39 years compared with 6.2 for males. For children under 13 years of age, calls about boys were at the rate of 5.4 per 10,000 and only 2.0 for girls. After age 40, the rate for men decreased sharply but for women aged 40 to 59 the rate remained high, 5.5 per 10,000.

These rates measure the demand for service that was channeled through the information service and are *not* measures of the prevalence of disorders and disturbing problems in the population. Even the *relative* frequency of calls for the different sex-age groups undoubtedly is affected by unknown selective factors. Thus, the greater frequency of calls for young than for old people could be due to lack of knowledge on the part of the public about available services or to more difficulty in obtaining appropriate service for children and young adults. No data are available on the number of persons in Brooklyn who receive some kind of psychotherapy or psychological service in a year to which the volume of calls to the information service might be compared. It is noteworthy, however, that calls for information were at an annual rate of 5 per 10,000 population which is one-half the rate for first admissions of Brooklyn residents to State hospitals.¹⁰ But hospital admissions include a high percentage of the older population, whereas most of the calls for information were for children and young adults for whom treatment might have significant preventive benefits.

Some previous treatment related to the problem described

¹⁰ The first admission rate for the fiscal year ending March 31, 1957, was 100.7 per 100,000 population. The rate for the white population of Brooklyn is not available in the published Annual Report of the New York State Department of Mental Hygiene.

was reported for approximately one-half of the cases. Nearly 5 per cent were inpatients of a mental hospital or correctional institution and 13 per cent were former inpatients. Another 15 per cent had been to outpatient psychiatric or guidance clinics, and 10 per cent had had treatment for their complaints at a medical service.

A minority of the calls were requests for information about a specific type of treatment service, and 68 per cent of those who called described a situation or complaint for which advice about obtaining service was wanted. Specific services about which information was requested included: hospitalization, 3 per cent; psychotherapy, 4 per cent from a private psychiatrist and 12 per cent from a clinic or unspecified source; psychoanalysis, 1.4 per cent; shock treatment, 1.1 per cent; and treatment for problems such as mental retardation, crippling diseases, alcohol or drug addiction, 6 per cent.

With some difficulty, the problems, situations, symptoms and complaints described by the callers, including those who asked for a specific service, were classified in ten broad categories. For 61 per cent of the cases, the calls were concerned with problems of behavior, of social or interpersonal relationships or with situations involving subjective sensations, such as anxiety, fear, and depression. These three types of problems accounted for 60 to 70 per cent of the cases in each age group except 60 years and older. For persons under 20 years of age, behavior problems were described most frequently. These included disturbed behavior, quarrelsomeness, sleep disturbances, school difficulties, lying and stealing, etc. and accounted for 45 per cent of the cases in this age group. Among adults, subjective sensations and interpersonal relationships were the most frequent causes of complaints. For the age group over 60 years, physical problems and a place to live and be cared for, were frequent causes for seeking a service, but for 39 per cent, the problems were in the three major categories.

Problems having a physical basis and those clasified as somatizations, such as headache and gastro-intestinal disorders were

10 per cent of the total. Movement disorders, chiefly speech and habit-training difficulties, were reported for only 4 per cent of the total, but were causes for a need for service for one-sixth of the children 12 years old or younger.

A very wide range of resources was used in making referrals or recommendations. One-fourth of the cases were referred to a fee-charging clinic or a private psychiatrist; 22 per cent were referred to a community psychiatric clinic and 16 per cent to a guidance clinic. Hospitalization for psychiatric treatment was recommended for nearly 5 per cent of the cases, and advice concerning hospitalization was given for 3 per cent. The situation called for emergency hospitalization only rarely, but referral to the admitting office of the psychiatric service in a city hospital was made for 33 cases. Four per cent of the cases were referred back to the resource which previously had given some service. In 12 per cent, the principal referral was to a welfare or other community agency.

It seems evident that in order to give effective service to those who call, the person staffing a telephone service must be familiar with treatment for a wide variety of complaints and with the resources which provide different types of treatment. Furthermore, very good judgment and understanding are required to interpret the problems which are articulated by the inquirer and to evaluate them for the purpose of referral to a service resource.

Information about what had happened to 88 cases during a year or more after being referred in October, November, or December, 1956, was obtained by a telephone followup to persons aged 20 to 44 years who called about themselves (47 cases) and to parents who called about children under 15 years of age (41 cases). The followed cases were three-fourths of the selected sample; one-fourth could not be reached and apparently most of these had moved.

Referrals to 92 service resources had resulted in applications for care at 74 per cent of these resources. However, 29 per cent of the applications were refused, but in more than half of these

instances some service was obtained at another resource. Non-acceptance for service was reported most frequently for applications made to child guidance clinics.

Some persons who did not go to the referral resource sought other treatment and some of those accepted by a referral resource were referred elsewhere after evaluation of the problem. Of the adults in this sample, seven out of eight reported having had some treatment or service; and care was reported for four out of five of the children. It is of interest that of the 62 cases for which the principal treatment was received from an out-patient psychiatric or guidance service, only one-third were treated at the referral resource.

At the time of the followup, the condition was reported as improved for three-fifths of the cases, as not improved for one-fifth and no information was given for one-fifth.

The high proportion of persons in the followup sample who received help may not be typical of the total population served by the BMHIS. One might expect the motivation to be relatively strong for self-callers and parents but three-fifths of all calls were of these types. Also, the "not found" group in the original followup sample may have included many who failed either to seek or to obtain service from a referral resource.

No overall evaluation of the value of a telephone referral service to those who used it or of the need for it is possible from the statistics given in this report. It gave constructive help to a fairly large number of people who apparently were uncertain about their needs and confused about finding service for a variety of problems. The information service was called on to interpret psychiatry and to give reassurance to many inquirers, and, it also had to evaluate the complaints presented before making a recommendation. It is, of course, impossible to tell what would have happened to these individuals had there been no such service.

Appendix Table I. Previous psychiatric or other care reported for cases.
Number in each sex-age group.

PREVIOUS TREATMENT OR SERVICE REPORTED	TOTAL BOTH SEXES	MALES—AGE KNOWN					FEMALES—AGE KNOWN				
		<12	13-19	20-39	40-59	60+	<12	13-19	20-39	40-59	60+
In Patient—Now	54	2	3	16	2	1	0	4	9	12	4
State—Fed.	20	1	1	7	2			1	4	6	
Private	12	1	1	3		1		2	1	2	1
Kings Co.—Other Temp.	22	2	1	6				2	4	4	3
In-Pt.—Discharged <2 Yrs.	84	2	2	20	7	1	1	3	24	18	4
2 Yrs. + or Unk.	71		2	21	4	2		1	15	17	7
In-Pt.—Total Discharged	155	2	4	41	11	3	1	4	39	35	11
State Hosp. or Fed.	97	1	1	30	7	2	1	2	19	24	8
Private or Prop. Hosp.	32		1	5	4	1			10	7	2
Kings Co.—Other City	12			4					5	3	
Private Agency—Sch.—Inst.	7	1	2	1				2	1		
Other and Unspecified	7			1					4	1	1
Psychiatric Clinic or Private	174	12	8	38	17	5	0	7	42	34	8
Brk.—Public, Community Cl.	22	1		6	1	1		1	6	4	
Brk. Vol. Hosp., + V. A.	3			1				1	1		
Not Brk.—Public	4		1	2					1		
Not Brk.—Volunt. Hosp.	9			2	1				3	1	2
Independent Clinic	4		1	3							
Private Psychiatrist	72	3	5	17	6	2		4	17	14	3
Shock Therapy, Priv. & Unsp.	32 ^a			2	6	1			8	12	3
Group Therapy	5 ^b			2	1				2		
Psychoanalysis	3			1	1				1		
Unspecified Source	9	2		1		1			2	3	
Child or Adult Guid.	9	4	1	1	1			1	1		
Bd. of Ed. Child Guid.	2	2									
Psychological and Rehabilitation	27	4	7	5	0	0	4	2	4	1	0
Special Schools	4						3	1			
Psychol. Clinic, Testing	6	3	2					1			
Pvt. Psychologist	8		2	4					1	1	
Aptitude, I.Q., Psychol. Tests	6	1	3				1		1		
Vocational Rehabilitation	3			1					2		
Medical Specialty or General	120	14	5	13	8	7	3	3	28	23	10
Crippled and Disabled	10	1	2	3					2	2	
Epilepsy, Seizures Cl.	3			1					2		
Neurological Service	10	2	1		2		1	1	1	1	1
Care of Retarded	2	1						1			
Endocrine, Diabetes	5	1							2	2	
Speech	1	1									
General Medical Service	76	8	2	8	5	6	2	1	18	16	5
M.D.—Pt. on Tranq.	8			1	1				3	2	
In-Pt. Nursing-Conv. Home	5					1					4
Social Welfare Agency	25	8	1	3	0	1	1	0	6	3	1
Dept. of Welfare	12	1		3			1		2	3	1
Family Service Agency	13	7	1			1			4		
Other Community Services	9		3	1				1	1	2	
Childrens Court	5		3					1			
Legal Aid	2			1						1	
Church Organization	2								1	1	

^a Includes 20 cases who received shock from private psychiatrist.

^b Includes 3 cases who received group therapy at Brooklyn Public Hospital Clinic and 1 who received it at Brooklyn Voluntary Hospital Clinic.

Appendix Table II. Problem or symptomatic complaint by sex and age.

PROBLEM OR COMPLAINT DESCRIBED	ALL AGES			AGE GROUPS												
	Both Sexes	Male	Female	Unk. Sex	<12		13-19		20-39		40-59		≥60		Unknown	
					M	F	M	F	M	F	M	F	M	F	M	F
Total Cases	1,166	531	623	12	126	43	81	53	221	275	74	177	25	53	4	22
No Information	43	15	27	1	2	2	5	4	5	11	3	5	0	2	0	3
Psychiatric Referral	68	33	32	3	4	1	5	5	19	16	1	4	1	2	3	4
Advice Regarding Treatment	74	34	38	2	6	3	5	6	20	14	3	12	0	1	0	2
Residence Referral	26	8	18	0	0	1	1	0	2	1	0	7	5	9	0	0
Physical Basis	47	23	24	0	2	1	1	0	8	6	3	11	8	5	1	1
Eyes, Ears	7	3	4	0					3	2	1	1			1	
Crippling Condition	11	7	4	0		1	1		4		1	3				
Cerebral Palsy	3	2	1	0	1				1	1						
Menopause	5	0	5	0								5				
Blood Pressure, Cardiac	7	4	3	0						2	2		2	1		
Seizure	10	6	4	0												
Diabetes	4	1	3	0	1					1		2		6	4	
Movement Disorder	46	35	10	1	24	3	3	0	6	3	2	4	0	0	0	0
Epilepsy	10	6	3	1	4	1			2	2						
Tic, Motor Control	6	4	2	0	2				1	1	1	2				
Stuttering, Speech	18	15	3	0	8		3		3	1	1	2				
Habit Training	12	10	2	0	10	2										
Somatized	71	23	47	1	4	1	3	0	8	25	8	17	0	4	0	0
Overweight	2	0	2	0												
Headache	9	2	7	0					2	4		2		1		
Asthma, Allergy	5	1	4	0	1	1				1		1		1		
Gastro-Intestinal	18	9	8	1	1		2		4	3	2	5				
Hypochondria	6	1	5	0						4	1	1				
Other and Ill-Defined	31	10	21	0	2		1		2	11	5	8		2		
Behavior Patterns	254	156	96	2	60	17	39	18	43	33	12	21	2	5	0	2
Alcoholism	5	2	3	0			1		2	1				1		
Drug Addiction	5	4	1	0			1		2		1	1		1		
Hallucinations	3	1	2	0			1							1		1
Confused, Disturbed	23	9	14	0			1		7	6	1	4				
Emotionally Disturbed	20	16	4	0	13	2	3	2						2		

[illegible]

Appendix Table III. Disposition of case by sex and age.

DISPOSITION ON REFERRAL (PRIMARY REFERRAL ONLY)	ALL AGES			AGE GROUPS												Unknown	
	M	F	Sex Unk.	≤12		13-19		20-39		40-59		≥60		M	F		
				M	F	M	F	M	F	M	F	M	F				
Total Cases	531	623	12	126	43	81	53	221	275	74	177	25	53	4	22		
Not Referred or No Record	28	33	2	4	1	5	6	15	9	2	8	2	4	0	5		
In-Pt. Psych. Treatment	37	52	1	7	0	5	3	19	22	5	22	1	4	0	1		
Recom. Hospitalization	23	27	1	5		2	2	12	11	3	11	1	2		1		
Kings Co. Adm.	11	22				2	2	6	10	3	8		2				
Advice, Hosp. Prev. Recom.	9	18		1		2	1	4	6	2	10		1				
Advice, Case in Hosp.	5	7		1		1		3	5		1		1				
Psychiatric Clinic	113	132	1	14	1	13	5	59	72	23	41	2	9	2	4		
Kings County	33	35		3	1	7	1	15	16	5	13	2	3	1	1		
Coor. Comm. Cl.	22	36	1	2				10	26	10	9				1		
Other Public Hosp. Cl.	4	8						2	4	2	3		1				
V. A. Clinic	10							10									
State After Care	5	10					1	5	5		3				1		
Vol. Hosp. Cl., Brk.	9	10		2		1		5	3	1	4		3				
Vol. Hosp. Cl., Other	21	25		7		5	3	6	13	3	9						
Group Therapy, Place Not Sp.	3	1						1	1	2							
Pub. or Vol. Hosp. Cl.	5	4						4	3					1	1		
Welfare Dept., Ask for Psych.	1	3						1	1				2				
Private Psychiatrist or Ind. Cl.	133	145	2	19	3	21	10	68	73	18	44	6	10	1	5		
Private Psychiatrist	59	71	2	9	3	15	6	21	33	8	24	5	4	1	1		
Priv. Psych., Diag. or Consult.	25	32		7		1	2	9	10	7	12	1	5		3		
Independent Clinic	42	39		1		5	2	3	28	3	8				1		
Priv. Psych. or Ind. Cl.	7	3		2				5	2				1				
Guidance Clinic	86	87	2	50	26	19	15	11	35	6	9	0	0	0	2		
Marriage Counsel	6	16						5	11	1	3				2		
Adult Guidance	12	23				1		6	17	5	6						

[illegible]

PATTERNS IN NEGRO-WHITE DIFFERENTIAL MORTALITY, 1930-1957

RICHARD F. TOMASSON¹

THIS is a study of patterns in Negro-white differential mortality in the years 1930 through 1957. Two questions are posed: (1) What are the extent and characteristics of the generally downward trends in Negro male and female mortality relative to that for white males and females? (2) To what extent has there been color convergence—a lessening of the differentials—in the age-adjusted age-specific, and specific-cause mortality experience of the two color populations? The mortality experience of the Industrial policyholders of the Metropolitan Life Insurance Company will be used to supplement the official data.

The quarter century 1930-1957, especially the years since the beginning of World War II, have been years of radical change for the American Negro, unmatched in demographic, sociological, and economic import since Reconstruction. But unlike the post-Civil War years, the years since 1940 have witnessed improvement in the life changes and socio-economic status of Negroes. Consider the lessening of the statistical gaps between Negro and white in income, education, labor force distribution, and other measures of socio-economic well-being.²

As a result a closing of the statistical gap would be expected in the general mortality experience of the two color populations. And so it is. But as soon as we go beyond age-adjusted mortality trends into age-specific trends and trends for the specific causes of death (to say nothing of age-specific specific-cause trends), we no longer have the simple convergence characteristic of overall mortality experience.

¹ Scripps Foundation for Research in Population Problems, Miami University.

² See Ginzberg, Eli: *THE NEGRO POTENTIAL*. New York, Columbia University Press, 1956, *passim*. See also recent numbers of United States Bureau of the Census, *Current Population Reports*, Series P-20 and P-60.

MORTALITY FROM ALL CAUSES

Crude rates are poor comparative measures for determining the extent of Negro mortality decline in relation to white decline. This is because the Negro population has always been younger than the white population with smaller proportions in the upper age categories where mortality is high.³ Even though the Negro population has larger proportions in the younger age categories where mortality is also high, the white age structure "disadvantage" remains: crude death rates tend to understate Negro mortality relative to white. For example, the 1957 nonwhite crude death rate of 1,044 per 100,000 population is only 11 per cent higher than the white crude death rate of 949. By contrast, the Negro age-adjusted rate of 1,133 for the same year is a full 50 per cent higher than the corresponding white rate of 754.⁴

Table 1 shows United States age-adjusted rates for the four sex-color populations for the years 1900 through 1957 standardized to the age distribution of the total United States population as enumerated in 1940. These are graphically presented in Figure 1. It is necessary to stress that nonwhite rates for years prior to about 1920 are very disproportionately rates for northern urban Negroes and must not be regarded as representative of the mortality experience of American Negroes. Only about 5 per cent of all nonwhites were included in the death-registration area of 1900, and only 12 per cent in 1910.⁵ By 1920, however, 34 States were included containing 66 per cent of the total non-white population.⁶

From Figure 1 note that for each of the sex-color categories there is a substantial decrease in age-adjusted death rates. This decline has been both relatively and absolutely greater for non-

³ For example, in 1920 4.8 per cent of the white population and 3.2 per cent of the nonwhite population was over 65. For 1930 the percentages are 5.7 and 3.2; for 1940 7.1 and 4.8; and 1950 8.1 and 5.7. Estimates for mid-year 1958 are 9.1 and 5.3.

⁴ United States National Office of Vital Statistics: *Vital Statistics—Special Reports*, November 30, 1959, 50, No. 20, pp. cxix, cxxi.

⁵ Gover, M.: A Survey of Negro Mortality. *Journal of Negro Education*, Summer, 1949, 18, p. 215.

⁶ *Ibid.*

whites than for whites and for females than for males. Note also that there is a long-term lessening of the color differentials—both relative and absolute—for males and females after 1930. A year-by-year analysis of the decline in mortality indicates that only after 1931 do nonwhite male and female rates begin dropping at a generally more rapid rate than the corresponding white rates. This shrinking of the color differential, however, is proceeding far more rapidly among the male than among the female populations.

From Table 1 note something which is not so obvious: after 1925 the ratio of nonwhite to white death rates tends to decrease in the first half of intercensal decades and to increase in the second half of such decades. This is characteristic of both males and females. For males the nonwhite/white ratio increases from 1.63 to 1.65 between 1925 and 1930, decreases from 1.65 to 1.50 between 1930 and 1935, increases from 1.50 to 1.53 between 1935 and 1940, then decreases from 1.53 to 1.35 between 1940 and 1945, and so on. Precisely the same

Table 1. Age-adjusted death rates,* by sex and color: Death-Registration States, 1900-1957, per 100,000 population.

YEAR	MALE			FEMALE		
	White	Nonwhite	<u>Nonwhite</u> White	White	Nonwhite	<u>Nonwhite</u> White
1900	1,843.7	2,866.9 ^b	1.55	1,675.7	2,714.4 ^b	1.62
1910	1,671.3	2,483.1 ^b	1.49	1,437.2	2,324.3 ^b	1.62
1920	1,420.6	2,042.4	1.44	1,313.9	2,098.4	1.60
1925	1,313.6	2,143.2	1.63	1,141.0	2,036.3	1.78
1930	1,275.9	2,099.9	1.65	1,057.9	1,920.7	1.82
1935	1,228.2	1,846.6	1.50	980.0	1,605.1	1.64
1940	1,155.1	1,764.4	1.53	879.0	1,540.7	1.71
1945	1,070.4	1,446.2	1.35	752.2	1,193.1	1.59
1950	963.1	1,358.5	1.41	645.0	1,095.7	1.70
1955	916.3	1,230.1	1.34	579.7	945.9	1.63
1957	939.4	1,297.3	1.38	584.7	981.1	1.68

* Computed by the direct method using as the standard population the age distribution of the 1940 enumerated population of the United States.

^b Rates are not representative of total nonwhite population.

Sources: United States National Office of Vital Statistics: *Final Statistics—Special Reports*, Jan. 9, 1956, 43, No. 1, p. 9; May 6, 1957, 46, No. 5, p. 113; and Nov. 30, 1959, 50, No. 20, p. cxix.

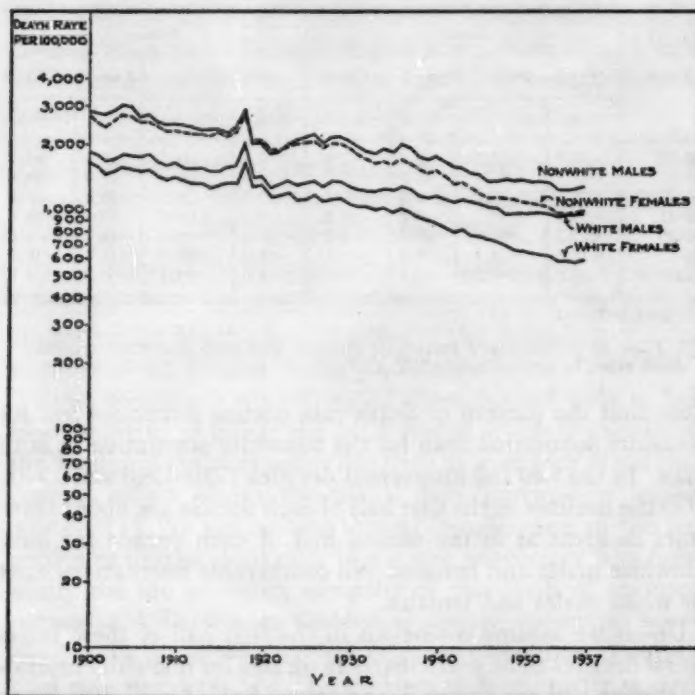


Fig. 1. Age-adjusted death rates, by sex and color, per 100,000 population: Death-Registration States, 1900-1957.

phenomenon is present among females. Unlike the earlier periods, the years 1955-1957 saw an increase in mortality for all populations, but in accordance with this curious pattern the increase was greater for nonwhite males and females vis-à-vis white males and females, i.e., the less favorable change is for nonwhites compared with whites in the latter halves of intercensal decades. There is no exception to this pattern after 1925 for either males or females.

The extent of this alternating pattern is shown more sharply in Table 2 which gives the absolute and percentage changes in death rates for the four sex-color populations for five-year intervals from 1925 to 1955 and for the period 1955 to 1957.

YEARS	MALE				FEMALE			
	Absolute Change		Percentage Change		Absolute Change		Percentage Change	
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
1925-30	-37.7	-43.3	-2.9	-2.0	-83.1	-115.6	-7.3	-5.7
1930-35	-47.7	-253.3	-3.7	-12.1	-77.9	-315.6	-7.4	-16.4
1935-40	-73.1	-82.2	-6.0	-4.5	-101.0	-100.4	-10.3	-6.3
1940-45	-84.7	-318.2	-7.3	-18.0	-126.8	-311.6	-14.4	-20.7
1945-50	-107.3	-87.7	-10.0	-6.1	-107.2	-97.4	-14.3	-8.2
1950-55	-46.8	-128.4	-4.9	-9.5	-65.3	-149.8	-10.1	-13.7
1955-57	23.1	67.2	2.5	5.5	5.0	35.2	0.9	3.7

SOURCE: Table 1.

Table 2. Absolute and percentage changes in United States age-adjusted death rates, by sex and color, 1925-1957.

Note that the pattern of death rate decline fluctuates less for the white population than for the nonwhite population in both sexes. In the two full intercensal decades 1930-1940 and 1940-1950 the declines in the first half of each decade are about three times as great as in the second half of each decade for both nonwhite males and females. No comparable fluctuations exist for white males and females.

Unless we assume conditions in the first half of these intercensal decades to be particularly favorable for nonwhite mortality decline and conditions in the second half of such decades to be particularly favorable for white mortality decline, the presence of some kind of systematic error would be suspected. The source of this error might be in the numerator (number of deaths) or the denominator (population) used in calculating death rates; or, it might be in both. As I have indicated in another paper, the most plausible explanation of this phenomenon appears to be in the intercensal estimates of the nonwhite population made by the Bureau of the Census.⁷ These estimates are used by the National Office of Vital Statistics for the computation of death rates and other statistics such as birth rates.

The belief that this alternating pattern is a statistical artifact is further strengthened by considering the data accumulated

⁷ This paper will be published in a forthcoming issue of the *Journal of the American Statistical Association*.

for the Industrial policyholders of the Metropolitan Life Insurance Company. But before presenting these data, I would like to evaluate this Metropolitan series as a supplementary source for the study of Negro-white differential mortality.

A SUPPLEMENTARY SOURCE OF MORTALITY DATA: THE
INDUSTRIAL POLICYHOLDERS OF THE METROPOLITAN
LIFE INSURANCE COMPANY⁸

Rates for these insured lives by age, sex, and race are available from 1911. These represent a valuable and relatively untapped source for the investigation of the mortality of a large segment of the United States population.

Even though we cannot regard these insured lives as being representative of either the total Negro or white populations, the Metropolitan data suffer less from at least four of the shortcomings which plague the official data, particularly for non-whites: (1) We can assume virtual completeness in the registration of deaths. Certainly it is a rare beneficiary who fails to notify the life insurance company of the death of an insured person. (2) There is no problem of underenumeration because the population for whom death rates are computed is the Industrial policyholders. (3) The problem of inaccuracies in the reporting of age is of slight importance since some documentary support of age is required. (4) The problem of ill-defined causes of death is less serious than in official sources.⁹

While the reliability, validity, and completeness of the data

⁸ The discussion of the Metropolitan data is based largely on the following sources: Dublin, L. I. and Lotka, A. J.: *TWENTY-FIVE YEARS OF HEALTH PROGRESS. 1911 TO 1935.* New York, Metropolitan Life Insurance Company, 1937; Dublin, L. I.: *HEALTH PROGRESS, 1936 TO 1945.* New York, Metropolitan Life Insurance Company, 1948; Dublin, L. I. and Spiegelman, M.: *Health Progress among Industrial Policyholders, 1946 to 1950. Transactions of the Society of Actuaries, September, 1951, 3, No. 7,* pp. 294-328; and Lew, E. A. and Spiegelman, M.: *The Mortality Experience of Industrial Policyholders, 1950 to 1955. Transactions of the Society of Actuaries, May, 1957, 9, No. 24,* pp. 148-187. Several points here were contributed in communication with Mr. M. Spiegelman, Associate Statistician of the Company.

⁹ In 1947 Dublin wrote: "No effort has been spared to obtain as complete and as accurate information as possible on causes of death through supplementary inquiries to physicians, hospitals, and coroners, and through information available from death claim forms in addition to that recorded on the official death certificate. Altogether, this statistical series, with respect to completeness, comparability and accuracy is

(Continued on page 368)

from which these Metropolitan death rates are calculated are superior to the official data, there are other special problems. Who are these Industrial policyholders, and how representative—or, rather, unrepresentative—are these insured lives, of the total Negro and white populations?

First, who are the Industrial policyholders? They are, for the most part, urban wage workers and their families. Not all are Americans, over 8 per cent are Canadians of whom very few are Negroes. There is a large concentration in the industrialized northeastern section of the United States, particularly among the Negroes. Relatively few of the male Industrial policyholders are farmers or professionals. On the other hand, those engaged in urban blue-collar occupations are overrepresented. The Metropolitan Industrial population includes a large proportion of the millions of Americans and Canadians who pay weekly and monthly premiums on relatively small life insurance policies. The number of Industrial policyholders increased from about 8,000,000 in 1911 to a maximum of about 19,000,000 in the immediate post-war years and then declined to around 18,000,000 in the middle 1950's. From 1911 through 1957 these insured persons comprised between 8 and 12 per cent of the combined population of the continental United States and Canada. The proportion of Negroes has generally varied between 11 and 13 per cent. A relatively small number of non-whites, other than Negroes, are classified as white in this series.

Our second question is how representative of the total white and Negro populations are the Industrial policyholders? That there is a degree of underwriting selection on the part of these insured lives cannot be denied, but it is slight and much less rigid than the selection standards for ordinary insurance which has a very strong selection and would be quite inappropriate for analysis.¹⁰

without counterpart in the annals of American vital statistics." See Dublin, L. I.: *Mortality Experience of the Metropolitan Life Insurance Company, 1911-1946*. PROCEEDINGS OF THE INTERNATIONAL STATISTICAL CONFERENCES, Vol. III, Part B. Washington, D. C., September 6-18, 1947.

¹⁰ Concerning selection of Industrial and Ordinary policyholders, Lew and Spiegel-
(Continued on page 369)

In the 1930's Metropolitan mortality was higher for white males and females than the United States mortality, for non-white males mortality was very similar in both populations, and for nonwhite females Metropolitan mortality was lower. By the 1950's Metropolitan mortality was still somewhat higher for white males in the United States series, and about the same as the United States series for white females, and appreciably lower for nonwhite males and females.

Certain discontinuities are contained in the industrial series resulting from inclusions of several different categories of small policyholders in the industrial group in 1945, 1955, and 1956.¹¹ I assume that these discontinuities are not great because there are no sizable changes in death rates for any of the four sex-color populations after these new categories were added.

One advantage of this mortality series is that it provides a kind of partial standardization of the elusive Negro-white economic and occupational differentials. These are difficult factors to equate when we are concerned with determining what for lack of a better name we might term the *inherent* differentials. These are the residual differences that exist when the basic demographic variables have been controlled. These are differentials that remain to be explained in terms of social, psychological, and cultural factors and in terms of differential biology.

Table 3 gives age-adjusted death rates for the Industrial policyholders at ages 1 through 74 for 1911 to 1957 for the four sex-color populations. These are graphically presented in Figure 2. The standard population adopted by the Metropolitan

man have written: "Since the standards of selection for Industrial insurance are considerably less stringent than those for Ordinary insurance, their effect upon mortality is not long-lasting, with the result that the aggregate experience of Industrial policyholders differs little from the ultimate experience." *Op. cit.*, p. 152.

¹¹ Monthly premium-paying policyholders were included in 1946 resulting in a slight lowering of the total Industrial mortality experience. In 1949, 80 per cent of the Industrial policyholders were weekly premium-payers and the balance were monthly premium-payers. Beginning with 1955, ordinary monthly premium-paying policyholders whose policies were less than \$1,000 were included, and beginning with 1956 this experience also includes a classification known as Debit Book Ordinary policies for \$2,000 and less. The effects of these two inclusions appear to be negligible. By the end of 1958, weekly premium-payers included only 55 per cent of the total exposure used in computing the death rates for Industrial policyholders.

was the "Standard Million" based on the actual age distribution of the total population of England and Wales as enumerated in 1901. The very young are excluded because of the small number of insured lives under age 1; the old because Industrial policyholders are put on a paid-up basis at age 75.

The same basic trends are evident here as in the United States data: there has been a substantial decrease in death rates for each of the four sex-color populations with Negro rates declining more rapidly than white rates and female rates declining more rapidly than male rates. Note the appreciably greater convergence that has occurred between white and Negro males compared with white and Negro females after 1930. A year-by-year analysis of the Metropolitan series indicates that it is only after 1931 that Negro male and female age-adjusted rates begin dropping faster than white male and female rates. This is the same year after which this occurs in the official data.

There are two differences, however, between these two series

Table 3. Age-adjusted death rates, for ages 1-74,* by sex and color: Industrial policyholders of the Metropolitan Life Insurance Company, 1911-1957, per 100,000 policyholders.

YEAR	MALE			FEMALE		
	White	Nonwhite	Nonwhite White	White	Nonwhite	Nonwhite White
1911	1,498.5	1,897.7	1.27	1,131.9	1,814.0	1.60
1920	1,060.2	1,490.9	1.41	940.6	1,531.5	1.63
1925	971.0	1,437.2	1.48	767.3	1,344.9	1.75
1930	925.4	1,474.1	1.59	697.3	1,304.6	1.87
1935	838.6	1,273.9	1.52	617.7	1,090.9	1.77
1940	725.9	1,036.7	1.43	507.6	905.1	1.78
1945	684.8	849.3	1.24	418.9	723.3	1.73
1950	569.1	695.8	1.22	334.0	572.5	1.71
1955	545.0	603.4	1.11	286.7	451.2	1.57
1957	545.4	641.7	1.18	278.0	472.2	1.70

* Standard population used is the Standard Million.

SOURCES: Rates for 1911 through 1930 are from Dublin, L. I., and Lotka, A. J.: *TWENTY-FIVE YEARS OF HEALTH PROGRESS, 1911-1935*. New York, Metropolitan Life Insurance Co., 1937, pp. 541-544. Rates for 1940 and 1945 from Dublin, L. I.: *HEALTH PROGRESS, 1936 TO 1945*. New York, Metropolitan Life Insurance Co., 1948, pp. 128-129. Rates for 1950 and 1955 from Lew, E. A., and Spiegelman, M.: *The Mortality Experience of Industrial Policyholders*. *Transactions of the Society of Actuaries*, May, 1957, 19, No. 24, p. 151. White rates for 1957 adjusted from rates given in the Metropolitan Life Insurance Co., *Statistical Bulletin*, January, 1958, 39, p. 2. Nonwhite rates for 1957 supplied by the Metropolitan.

of data: (1) There is not even a hint of the alternating pattern of decline in the Metropolitan series characteristic of the United States series. This is clearly indicated by Table 4 which gives absolute and percentage changes similar to Table 2 for the United States series. (2) Metropolitan male color differentials are of increasingly lesser magnitude than the United States differentials from around 1940 on. For females, on the other hand, United States color differentials appear to be erratically larger than the Metropolitan differentials until around 1950, after which they appear to be slightly smaller.

The meaning of the first disparity between these two series is clear: the alternating pattern in the official data appears to be a statistical artifact. A thorough explanation of this curious pattern, however, awaits further study. The meaning of the latter disparity, the changes in the relative magnitude of the color differentials between these two series, also awaits further investigation. Its explanation, however, involves three factors difficult of measure: (1) the differential increase in the completeness of registration of white and Negro deaths in the United States series; (2) changes in the formal categories of the industrial population together with more subtle changes in the demographic characteristics of these policyholders themselves on which no data are available; and (3) different downward trends

Table 4. Absolute and percentage changes in age-adjusted death rates, for ages 1-74, by sex and color: Industrial policyholders of the Metropolitan Life Insurance Company, 1925-1957.

YEARS	MALE				FEMALE			
	Absolute Change		Percentage Change		Absolute Change		Percentage Change	
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
1925-30	-45.6	36.9	-4.7	2.6	-70.0	-40.3	-9.1	-3.0
1930-35	-86.8	-200.2	-9.4	-13.6	-79.6	-213.7	-11.4	-16.4
1935-40	-112.7	-237.2	-13.4	-18.6	-110.1	-185.8	-17.8	-17.0
1940-45	-41.1	-187.4	-5.7	-18.1	-88.7	-181.8	-17.5	-20.1
1945-50	-115.7	-153.5	-16.9	-18.1	-84.9	-150.8	-20.3	-20.8
1950-55	-24.1	-92.4	-4.2	-13.3	-47.3	-121.3	-14.2	-21.2
1955-57	0.4	38.3	0.1	6.3	-8.7	21.0	-3.0	4.7

SOURCE: Table 3.

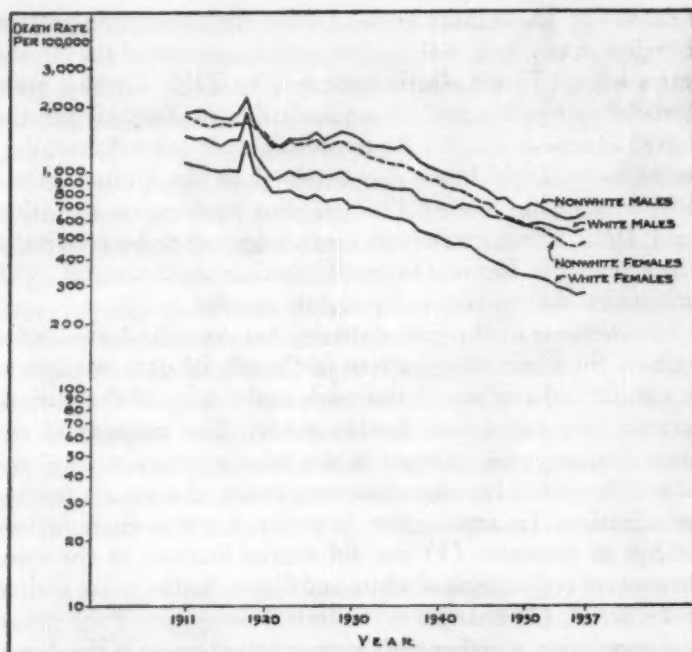


Fig. 2. Age-adjusted death rates for ages 1-74, by sex and color, per 100,000 policyholders: Industrial Policyholders of the Metropolitan Life Insurance Company, 1911-1957.

among the four United States sex-color populations, on the one hand, and the urban industrial segments of these sex-color populations, on the other.

AGE-SPECIFIC MORTALITY

Figures 2-6 show the trend of mortality by age for the four color-sex populations for both the United States and Metropolitan series. For all populations in both series of data, rates are lower in 1957 than in 1930. In addition, there has been near universal convergence in the magnitude of the color differentials in both series. In general, the rate of mortality decline has varied inversely with age in each of the four populations in both series.

Table 5 shows percentage changes in white-nonwhite relative differentials for age-specific death rates for both series for the intercensal decade prior to World War II, 1930 and 1940, and for the eleven-year post-war period, 1946 and 1957. These percentage changes were calculated by dividing the ratio expressing the white-nonwhite differential for one year by such a ratio for the preceding specified year, i.e., for 1940 and 1930, and 1957 and 1946. The ratios used to express the white-nonwhite differential were calculated by dividing the larger rate by the smaller rate. (The larger rate is generally the nonwhite rate except at the upper ages in the United States series where the larger rate is generally the white rate.) Dividing the larger by the smaller rate rather than the nonwhite by the white rate was done so that a minus sign always represents convergence and a plus sign divergence. There has not been the overall convergence of the relative color differentials that there has been for

Table 5. Percentage changes* of white-nonwhite relative differentials for age-specific death rates for United States and Metropolitan Life Insurance Company series, by sex, 1930 and 1940, 1946 and 1957.

Age	1930-1940				1946-1957			
	Male		Female		Male		Female	
	U.S.	Met.	U.S.	Met.	U.S.	Met.	U.S.	Met.
Under 1	+5	No Data	+1	No Data	+29	No Data	+31	No Data
1-4	+4	-12 ^b	+1	-25 ^b	+13	+15 ^b	+17	-2 ^b
5-14	-1	-23 ^b	-3	-27 ^b	+7	-10 ^b	-3	-39 ^b
15-24	-3	-10	+12	+19	-24	-39	-31	-33
25-34	+2	-10	+11	0	0	+3	-5	-1
35-44	0	-10	+8	-6	0	-7	+2	-1
45-54	0	-9	+4	+4	-11	-8	+1	+2
55-64	-7	-2	-5	+4	+14	-17	+24	-3
65-74	-5	-2	-3	+2	+29	-12	+42	-4
75-84	+11	No Data	+6	No Data	-9	No Data	-12	No Data
85+	+21	No Data	+23	No Data	+31	No Data	+18	No Data

* These percentage changes were calculated by dividing the ratio expressing the white-nonwhite differential for one year by such a ratio for the preceding specified year, i.e., for 1940 and 1930, and 1957 and 1946. The ratios used to express the white-nonwhite differential were calculated by dividing the larger rate by the smaller rate. (The larger rate is generally the nonwhite rate except at the upper ages in the United States series where the larger rate is generally the white rate.) Dividing the larger by the smaller rate rather than the nonwhite by the white rate was done so that a minus sign always represents convergence and a plus sign divergence.

^b Rates have low reliability because of year-to-year fluctuations resulting from relatively small frequencies.

Sources: See Tables 1 and 3.

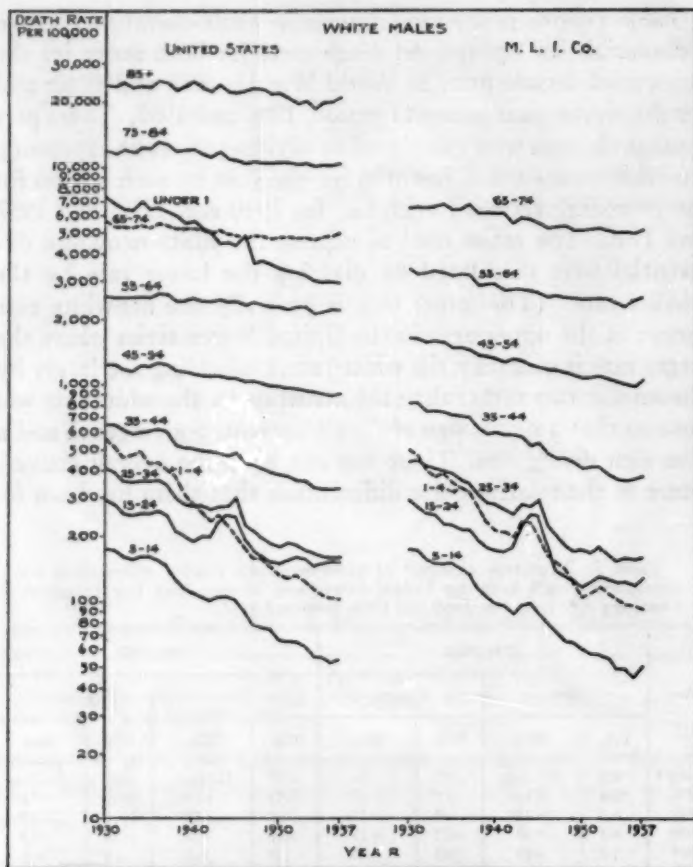


Fig. 3. Age-specific death rates for white males, United States and the Metropolitan Life Insurance Company series, 1930-1957.

the absolute color differentials. Note the following trends:

Males, 1930-1940. The United States series shows negligible relative convergence of rates at ages 5-24 and more substantial convergence at ages 55-74. At all other ages there has been divergence or no trend at all. Note that the only sizable divergence is at ages over 75 where nonwhite rates are consistently lower than white rates. The Metropolitan data show across-

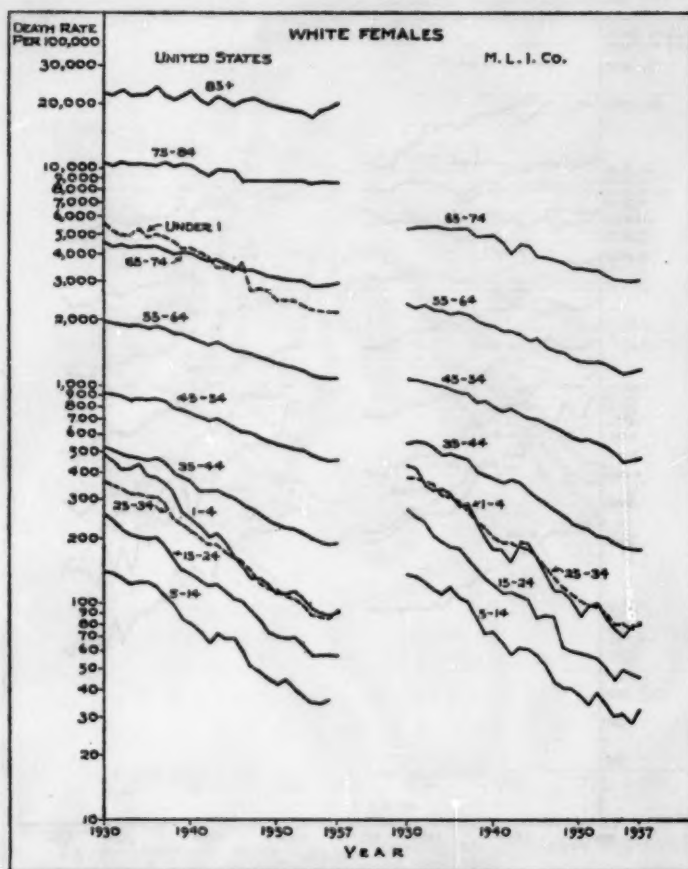


Fig. 4. Age-specific death rates for white females, United States and the Metropolitan Life Insurance Company series, 1930-1957.

the-board color convergence at all ages from 1 through 74, with substantial convergence at ages through 45-54.

Females, 1930-1940. There is even less relative convergence with United States females than with United States males in this period. At ages 5-14 and at ages 55-74 there is slight convergence. There is divergence at all other ages, and it is sub-

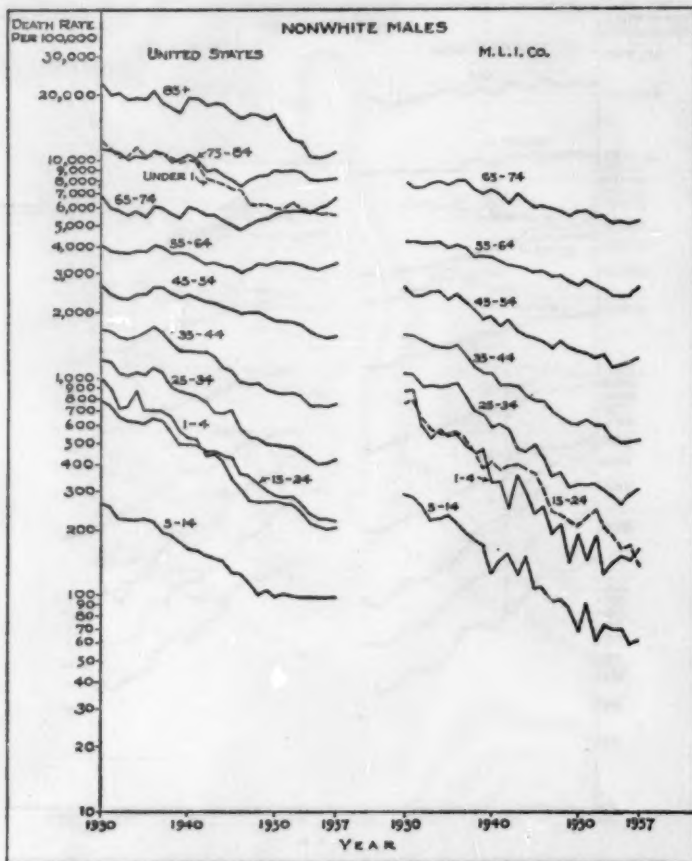


Fig. 5. Age-specific death rates for nonwhite males, United States and Metropolitan Life Insurance Company series, 1930-1957.

stantial at ages 15-44. The same divergence of higher white rates and lower nonwhite rates at ages over 75 occurs among the United States females as with the United States males. The Metropolitan series for females, unlike that for Metropolitan males, does not show extensive color convergence. Only at ages 1-14 and 35-44 is there convergence.

Males, 1946-1957. United States males show convergence

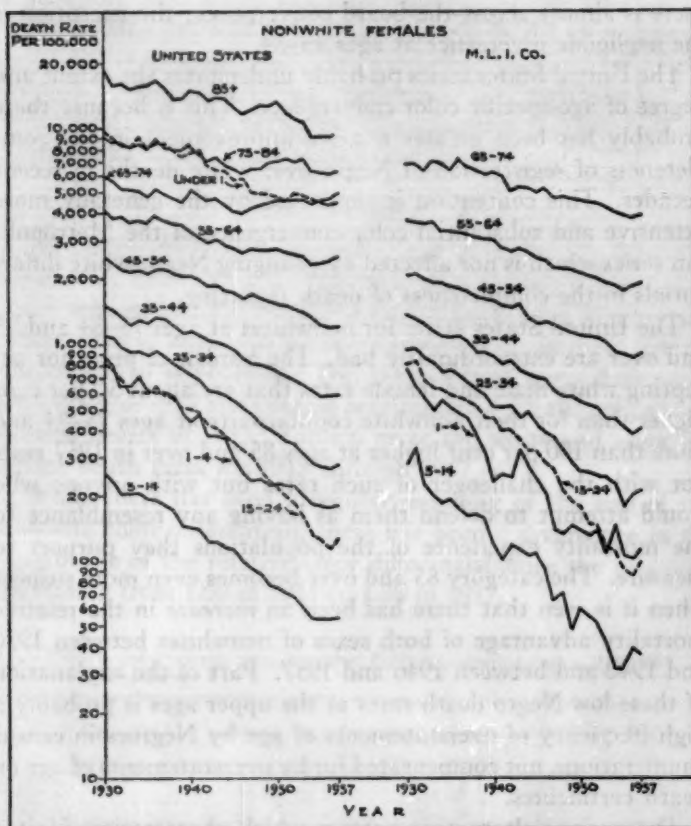


Fig. 6. Age-specific death rates for nonwhite females, United States and Metropolitan Life Insurance Company series, 1930-1957.

only at ages 15-24, 45-54, and 75-84. This latter represents a convergence of lower nonwhite rates with higher white rates. Unlike the United States series, the Metropolitan data show extensive and substantial convergence. Only at ages 1-4 and 25-34 is there divergence, and at ages 1-4 this series is unreliable.

Females, 1946-1957. There is convergence at ages 5-34 and 75-84 for United States females. For the Metropolitan females

there is almost across-the-board convergence; the exception is the negligible divergence at ages 45-54.

The United States series probably understates the extent and degree of age-specific color convergence. This is because there probably has been greater relative improvement in the completeness of registration of Negro over white deaths in recent decades. This contention is supported by the generally more extensive and substantial color convergence of the Metropolitan series which is not affected by changing Negro-white differentials in the completeness of death reporting.

The United States series for nonwhites at ages 75-84 and 85 and over are extraordinarily bad. The burden of proof for accepting white male and female rates that are about 30 per cent higher than for their nonwhite counterparts at ages 75-84 and more than 100 per cent higher at ages 85 and over in 1957 rests not with the challenger of such rates but with anyone who would attempt to defend them as having any resemblance to the mortality experience of the populations they purport to measure. The category 85 and over becomes even more suspect when it is seen that there has been an *increase* in the relative mortality advantage of both sexes of nonwhites between 1930 and 1940 and between 1946 and 1957. Part of the explanation of these low Negro death rates at the upper ages is probably a high frequency of overstatements of age by Negroes in census enumerations, not compensated for by overstatements of age on death certificates.

The curious alternating pattern which characterizes United States white-nonwhite age-adjusted death rate declines after 1925 is strongly reflected in the United States age-specific declines after 1930. During the two full intercensal decades 1930 to 1950, for males at ages 15-24 through 85 and over, 26 out of 32 of the percentage decline color comparisons are in accord with the alternating pattern of greater nonwhite percentage declines in the first half of intercensal decades, and greater white declines in the second half of such decades. For females 29 of 32 comparisons are in accord with the pattern. For the

Metropolitan series at ages 15-24 through 65-74, 15 of 24 comparisons are in accord with the pattern for males and 18 of 24 for females.¹² This is higher agreement than was expected, but not enough to make me doubt that the pattern is a statistical artifact in the United States nonwhite data.

INFANT DEATH RATES

Not until 1927, with the admission of Alabama, Arkansas, Louisiana, Missouri, and Tennessee, were enough of the Southern states included in the Birth-Registration Area for the nonwhite rates to approach representativeness of the total United States Negro population. The Birth-Registration Area came into being in 1915 and became coterminous with the continental United States in 1933. Table 6 gives the white and nonwhite infant death rates for 1915 through 1957.

While there has been a regular lessening of the size of the absolute color differentials, there has been a divergence in the magnitude of the relative color differential since the mid-40's, increasing from 1.60 in 1945 to 1.88 in 1957.

Table 6. Infant death rates, by color: Birth-Registration States, 1915-1957, per 1,000 live births.

YEAR	WHITE	NONWHITE	$\frac{\text{NONWHITE}}{\text{WHITE}}$
1915	98.6	181.2*	1.84
1920	82.1	131.7*	1.60
1925	68.3	110.8*	1.62
1927	60.6	100.1	1.65
1930	60.1	99.9	1.66
1935	51.9	83.2	1.60
1940	43.2	73.8	1.71
1945	35.6	57.0	1.60
1950	26.8	44.5	1.66
1955	23.6	42.8	1.81
1957	23.3	43.7	1.88

* Rates not representative of total nonwhite population.

SOURCES: United States National Office of Vital Statistics: *Fatal Statistics—Special Reports*, July 27, 1956, 45, No. 1, p. 7; and Nov. 30, 1959, 50, No. 20, p. cxxiv.

¹² Age-specific categories with ages under 10 were not included in these computations because the denominators upon which these rates were computed were obtained wholly or partly from registration data.

Note the presence of an alternating pattern here between 1930 and 1950. Between 1930 and 1935, the relative differential declines from 1.66 to 1.60, between 1935 and 1940 there is an increase from 1.60 to 1.71, between 1940 and 1945 a decrease from 1.71 to 1.60, then between 1945 and 1950 an increase from 1.60 to 1.66. I believe this is accidental and not related to the alternating pattern characteristic of the United States age-adjusted and age-specific rates. This is because birth registration figures are used in computing infant death rates, not population estimates. And it is some systematic bias in the intercensal estimates of the nonwhite population which appears to form the only plausible explanation of this pattern. Unfortunately, there are no comparable Metropolitan data to verify this interpretation.

MATERNAL DEATH RATES

No aspect of mortality decline has been more rapid than the mortality from maternity and its complications in recent decades, particularly in the period 1940 to 1957. In 1940 the white maternal mortality rate was around ten times that of 1957;

Table 7. Maternal death rates, by color: Birth-Registration States, 1915-1957, per 10,000 live births.

YEAR	WHITE	NONWHITE	$\frac{\text{NONWHITE}}{\text{WHITE}}$
1915	60.1	105.6 ^a	1.76
1920	76.0	128.1 ^a	1.69
1925	60.3	116.2 ^a	1.93
1927	59.4	113.3	1.91
1930	60.9	117.4	1.93
1935	53.1	94.6	1.78
1940	32.0	77.3	2.42
1945	17.2	45.5	2.65
1950 ^b	6.1	22.2	3.64
1955	3.3	13.0	3.94
1957	2.8	11.8	4.21

^a Rates not representative of total nonwhite population.

^b Some discontinuity is introduced resulting from change from Fifth to Sixth Revision of the INTERNATIONAL LIST in 1949. Rates for 1949 and after would be some 9 per cent higher if classified according to principles of the Fifth Revision.

SOURCES: United States National Office of Vital Statistics: *Vital Statistics—Special Reports*, September 23, 1937, 46, No. 17, pp. 439-440; and November 30, 1959, 50, No. 20, p. cxxviii.

for nonwhite mothers it was almost seven times greater than in 1957. Table 7 shows maternal mortality rates for 1915 through 1957. These rates are based on the number of maternal deaths per 10,000 live births (multiple births being counted as one birth) and are for the same birth-registration states as the infant death rates.

There has been a sharp convergence in the magnitude of the *absolute* color differentials since about 1930, but there has been a sharp divergence in the magnitude of the *relative* differentials from the mid-30's.

SPECIFIED-CAUSE MORTALITY

As there are some tenacious differences in the specific-cause death rates of men and women, so there are between American whites and Negroes. A substantial share of the excess mortality of Negroes is and has been the result of greater mortality from tuberculosis, influenza and pneumonia, diseases of the circulatory system (particularly nephritis and hypertension), and homicide, but most causes of death are characterized by persistent color differentials. For the large majority of causes these differentials are to the disadvantage of the Negro, but for a few the opposite is the case.

Let us look at the United States data to see where there is convergence and divergence among the leading causes of death.¹³ A "leading cause of death" is arbitrarily defined as any category or meaningful combination of categories of death which accounted for at least one per cent of all deaths in any one of the four United States sex-color populations in 1957.¹⁴ Table 8 lists these causes with age-adjusted rates for 1949 and 1957 with percentage changes in the magnitude of the relative differentials.

Comparing 1957 rates with rates for a year as recent as 1949 was done because of the radical nature of the discontinuities

¹³ Metropolitan specific-cause rates are not given here because they are available only for the years 1950 through 1955 at present. In addition, frequencies are quite small for many causes making single year comparisons unreliable.

¹⁴ The category "Certain diseases of early infancy" was excluded because it contains such a mixture of infectious, organic, and external causes of death.

Table 8. Specific-cause age-adjusted^a death rates for the leading causes of death with percentage changes in relative differentials:^b United States, 1949 and 1957.

DISEASE	MALE				FEMALE			
	1949		1957		1949		1957	
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
Infectious Diseases								
Tuberculosis, All Forms	26.7	95.4	9.0	28.8	12.5	62.2	2.9	13.1
Influenza and Pneumonia	26.5	60.4	31.0	67.5	18.0	46.5	19.7	48.2
Oncotic Diseases								
Malignant Neoplasms, Including Neoplasms of Lymphatic and Hematopoietic Tissues	130.1	117.7	142.4	158.4	120.6	126.7	113.7	130.8
Diabetes Mellitus	11.7	11.0	11.1	13.3	17.6	23.0	14.5	24.9
Major Cardiovascular, Renal Diseases	508.3	615.0	506.0	621.9	338.9	568.8	311.3	530.9
Vascular Lesions Affecting Central Nervous System	85.0	137.4	86.1	148.6	78.5	152.9	74.8	150.6
Diseases of Heart	376.5	395.9	382.0	407.2	222.7	339.6	209.4	323.3
Chronic Rheumatic Heart Disease	13.1	15.6	10.7	10.1	12.2	13.8	10.5	10.0
Arteriosclerotic Heart Disease, Including Coronary Disease	248.2	150.4	301.9	225.1	114.6	105.5	140.8	149.8
Nourheumatic Chronic Endocarditis and Other Myocardial Degeneration	56.5	80.8	29.4	48.3	43.5	69.3	22.9	40.3
Other Diseases of Heart	16.5	35.3	12.2	28.8	9.0	27.7	6.6	20.2
Hypertension With Heart Disease	42.2	113.8	27.7	94.8	43.4	123.4	28.6	103.0
Hypertension Without Mention of Heart	6.6	16.5	4.8	15.9	5.9	16.9	3.9	14.2
General Arteriosclerosis	18.6	18.5*	15.0	15.7	14.8*	14.4*	12.3*	13.6*
Chronic and Unspecified Nephritis and Other Renal Sclerosis	15.2	38.1	7.8	20.8	12.2	36.4	5.5	19.1
Cirrhosis of Liver	11.8	8.6	14.6	13.9	5.8	5.0*	6.6	8.5
External Causes								
Motor-Vehicle Accidents	33.2	37.2	36.9	43.7	9.7	9.3	11.2	12.6
Accidents, Except Motor-Vehicle	47.7	65.6	39.5	63.7	21.5	25.8	16.0	26.5
Suicide	18.2	7.8	16.1	8.3	5.2	1.7*	4.5	1.6
Homicide	4.1	48.9	3.5	43.3	1.4	11.7*	1.4	10.3
All Causes	971.7	1,346.6	939.4	1,297.3	659.3	1,105.3	584.7	981.1

^a Based on age-specific rates where more than half of the rates were based on frequencies less than 20.^b Computed by the direct method using as the standard population the age distribution of the total 1940 enumerated population of the United States.^c See Note a, Table 5.Source: Rates for 1949 from United States National Office of Vital Statistics: *Vital Statistics—Special Reports*, 1956, 43, *passim*; and from unpublished rates adjusted by NOVS. Rates for 1957 from NOVS: *Vital Statistics—Special Reports*, 1959, 50, p. cxix; and from unpublished rates adjusted by NOVS.

introduced by the Sixth Revision of the INTERNATIONAL LIST which took effect in 1949.¹⁵ For many, perhaps most, causes of death there is a loss of comparability with specific-cause mortality differentials for earlier years because of a differential impact on the varying age, sex, color, and geographic categories. This is particularly true of diabetes, heart disease, hypertension, and nephritis. Most of the acute infectious diseases (none of which is dealt with here) and the larger segment of the external causes of death (motor-vehicle accidents, suicide, and homicide), however, were virtually unaffected by this Revision.

By 1957 nonwhite age-adjusted death rates remain higher than white rates for the great majority of the leading causes of death. Of the 20 categories listed in Table 8 white males have higher age-adjusted rates than nonwhite males only from arteriosclerotic heart disease, cirrhosis of the liver, and suicide. White females have greater rates than nonwhite females only for suicide. Differences are trivial in both sexes for chronic rheumatic heart disease and among males for general arteriosclerosis. Age-specific rates for these causes with similar age-adjusted rates manifest nonwhite excesses in the middle years and white excesses in the upper years.

From Table 8 note that there is color convergence among males between 1949 and 1957 for only five causes: tuberculosis, influenza and pneumonia, chronic rheumatic heart disease, arteriosclerotic heart disease, and cirrhosis of the liver. Malignant neoplasms shows no differential change over this eight-year period. The other 14 causes show varying amounts of color divergence, ranging from the slight divergence of the major

¹⁵ For discussions of the effects of the changes introduced by the Sixth Revision see the following: Fales, W. T. and Moriyama, I. M.: International Adoption of Principles of Morbidity and Mortality Classification, *American Journal of Public Health*, January, 1949, 39, No. 1, pp. 31-36; Erhardt, C. L. and Weiner, L.: Changes in Statistics through Use of New International Statistical Classification, *American Journal of Public Health*, January, 1950, 40, No. 1, pp. 6-16; United States National Office of Vital Statistics: The Effect of the Sixth Revision of the International Lists of Diseases and Causes of Death Upon Comparability of Mortality Trends, *Vital Statistics—Special Reports*, 1951, 36, No. 9, pp. 153-168; Valois, A. B.: Changes Due to the Sixth Revision of International Statistical Classification of Diseases, Injuries and Causes of Death, *Canadian Journal of Public Health*, 43, October, 1952, pp. 434-441; and Lew and Spiegelman, *op. cit.*

cardiovascular-renal diseases to substantial divergence of hypertension—both with heart disease and without heart disease.

Among females, seven of the twenty categories show varying degrees of color convergence ranging from the certainly negligible convergence of other diseases of heart to the more substantial convergence of homicide and tuberculosis. Of the fourteen causes showing varying degrees of divergence, diabetes, hypertension with and without heart disease, and accidents, except motor-vehicle have shown major degrees of divergence.

Comparing relative change in specific cause differentials between 1949 and 1957 is particularly appropriate because of the similarity of the relative color differentials for both sexes in these two years. The color differential for both males and females is precisely the same for 1949 and 1957, i.e., the percentage differential change is less than half of one per cent. Table 8, then, can be viewed as showing the extent of changes in specific-cause differential mortality while overall mortality is constant.

How valid these death rates are as measures of Negro-white differential mortality is often difficult to assess, particularly for the organic conditions which involve many more problems of diagnoses than the infectious or external causes. The most difficult trends to interpret are probably for malignant neoplasms and the specific heart diseases.

Mortality trends for no leading specific cause of death misrepresent the reality more than those for malignant neoplasms. Nonwhite male rates are the lowest of the four sex-color populations in 1949, but the highest in 1957. Also, rates for white males and nonwhite males and females are higher in 1957 than in 1949, but rates for white females are lower. These are undoubtedly partly spurious changes. The principal reason for these changes is probably the greater relative improvement in diagnosis of cancer in males over females and in nonwhites over whites that has been occurring in recent years. The great increase in male cancer rates is largely the result of improved diagnosis of cancer in the more internal and less accessible regions, particularly of the digestive and respiratory systems,

where the greater share of male cancer and the smaller share of female cancer is located. The increase in nonwhite rates is undoubtedly partly the result of greater relative improvement of diagnoses.

Again, there are difficulties in determining the true differential mortality trends from the specific heart diseases because of the increasing practice of classifying heart disease under the arteriosclerotic rubric. This has resulted in a marked increase in arteriosclerotic heart disease death rates in all of the sex-color populations between 1949 and 1957, but a decrease for the other four heart disease categories in each of the four populations. In any case, one fundamental, unassailable fact regarding Negro-white differential mortality from the specific heart diseases remains: the occurrence of hypertension (with or without heart disease) is several times greater among Negro males and females than among white males and females and the magnitude of the relative differentials has increased sharply in recent years. A further generalization might be timidly ventured to the effect that the excess white male mortality from arteriosclerotic heart disease may be shown in the future to be largely a result of Negro-white differential diagnoses. This is because of the known relationship between a high level of medical care, i.e., treatment by heart specialists, and classification of heart deaths as arteriosclerotic heart disease.¹⁸ Note the substantial convergence that has occurred here in the nine-year period 1949-1957.

I hope four points have been made: (1) the presence and effects of a curious alternating pattern in the official United States age-adjusted and age-specific time series, (2) the usefulness of the Metropolitan series as an adjunct to the interpretation of the official United States series, (3) the complex of convergent and divergent age-specific and specific cause trends

¹⁸ Lew, E. A.: Some Implications of Mortality Statistics Relating to Coronary Disease. *Journal of Chronic Diseases*, September, 1957, 6, No. 3, pp. 192-209.

that lay behind the simple convergence of Negro-white age-adjusted rates, and (4) the need to consider problems of differential diagnoses in interpreting Negro-white differential mortality from the organic conditions.

ON VALUES IN POPULATION THEORY

LEIGHTON VAN NORT¹

VALUES have not been a conspicuous problem for most contemporary demographers. Insofar as values are presumed to affect demographic behavior, they customarily appear in the context either of social-psychological theories of fertility² or economic models built on considerations of comparative costs and preferences.³ Despite the fact that demography is customarily grouped as a sub-discipline within sociology departments, to this day little use has been made of sociological perspectives on values, except for rather *ad hoc* consideration of mobility aspirations, opportunities for women, secularization, and the like. It is the thesis of this paper that demographers have—on the whole—accepted the dominant values of our own Western society in an uncritical fashion, and thus have felt little need for sociological perspective on those values. To put the matter quite strongly, I allege that much of demographic theory is culture-bound. Its account of demographic reality rests in part on humanistic value-postulates derived from Western culture.

The assertion that much of demographic theory is culture-bound is not only controversial, but somewhat brash. The present paper is intended to be provocative rather than definitive. Supporting documentation representative of the very broad range of demographic theory would require several papers as long as this one. Here the argument can only be illustrated by brief comment on one body of theory in which the writer happens to be especially interested—the theory of demographic

¹ From the Department of Sociology and Anthropology, Princeton University. This paper was prepared for oral delivery at the meetings of the Eastern Sociological Society, Boston, Mass., April 23–24, 1960. Some notes have been added.

² Whelpton, P. K. and Kiser, Clyde V. (eds.): *SOCIAL AND PSYCHOLOGICAL FACTORS AFFECTING FERTILITY*. New York: Milbank Memorial Fund, 5 vols., 1946–1958.

³ See, for example, Gottlieb, Manuel: *The Theory of Optimum Population for a Closed Economy*. *Journal of Political Economy*, December, 1945, 53, pp. 289–316.

transition. This body of theory dealing with the effects of urbanization and industrialization on birth rates and death rates is not, however, merely an arbitrary selection, for it is a truly collective crystallization of the thinking of a number of well-known demographers, and has indeed been characterized as demography's best claim to general theoretical development.⁴ In addition, transition theory represents a salient point of contact between scholarly work in demography and public policy.

I believe that transition theory fails to attain complete objectivity in a number of respects. These include (1) its failure to distinguish adequately between (a) structural concomitants of urbanization and industrialization, such as changes in the family and social stratification, and (b) concurrent changes in values which we take for granted; (2) failure to deal in any thorough-going way with abortion and infanticide as alternatives of "approved" methods of birth control; (3) implicit faith in the viability of the existing world order despite recognized demographic pressures; and (4) a moralistic attitude toward mortality comparable to certain religious orientations toward fertility. I should add that these allegations have purposely been stated in somewhat stronger form than is really justified; some qualifications will appear below, as each of these points is developed.

1. *Values as Intervening Variables.* Kingsley Davis has pointed out that we must never forget that "motivational linkages" generally intervene between external conditions and demographic behavior.⁵ Insofar as demographic changes are the consequence of purposive human behavior, this is *always* the case. Yet the question of the extent to which improvements in health are *required* by urbanization and industrialization, as opposed to simply being made technically feasible, has never been adequately investigated. The issue is by-passed when it

⁴ Vance, Rupert B.: Is Theory for Demographers? *Social Forces*, October, 1952, 31, pp. 9-13.

⁵ Davis, Kingsley: The Demographic Consequences of Changes in Productive Technology: An Essay on the Problem of Measurement. In *International Social Science Council: SOCIAL, ECONOMIC AND TECHNOLOGICAL CHANGE: A THEORETICAL APPROACH*. Paris, 1958, p. 199.

is asserted that good health and long life are universal human values which are bound to be implemented when possible.⁶ For example, to what extent *must* morbidity be reduced to provide a suitable industrial labor force? What is the *least favorable* mortality schedule compatible with urban-industrial life? These empirical questions are usually not even raised, let alone answered.⁷ "Universal human values" do not dispose of the probability that health conditions deteriorated in the early industrial cities of Western Europe before beginning their long secular improvement,⁸ nor rule out the possibility that improved health might be assigned a lower priority than other human values, in practice. Must mortality inevitably fall with industrialization? And how far?

A parallel question may be posed with regard to the effect of urbanization and industrialization on fertility. Is the transformation of an ideal of many children into an ideal of fewer healthy children inevitable, or just desirable? Would fertility have fallen in the same fashion if new standards of child-welfare had not come to prevail in the West? Perhaps we take too much for granted in assuming the same pattern of fertility decline in newly industrializing countries.

2. *Abortion and Infanticide as Alternatives to Birth Control.* There are reasons for believing that infanticide existed in pre-industrial Europe, despite church teachings.⁹ We have every

⁶ Notestein, Frank W.: *Knowledge, Action, People*. University, Fall, 1959, 2, pp. 21-3; Davis, Kingsley: *HUMAN SOCIETY*. New York: Macmillan, 1949, pp. 562-4; cf. Moore, Wilbert E.: *Sociology and Demography*, in Hauser, P. M. and Duncan, O. D.: *THE STUDY OF POPULATION: AN INVENTORY AND APPRAISAL*. Chicago: University of Chicago Press, 1959, p. 837.

⁷ Notestein, for example, simply states, "Rapid improvements in health are necessary for the effective utilization of modern technology . . ." (Frank W. Notestein, "Abundant Life." Address delivered at a seminar on "The Problems of the Population Growth in Underdeveloped Countries and the Desirability of Family Planning," held at Karachi, Pakistan, September 8-15, 1959, under the auspices of the Institute of Development Economics of the Government of Pakistan and the Population Council, Inc. Ms. copy on file at Princeton University Library.) Such statements are commonly regarded as self-evident, and not in need of any special qualification.

⁸ United Nations: *THE DETERMINANTS AND CONSEQUENCES OF POPULATION TRENDS*. New York, 1953, pp. 52-53.

⁹ Russell, Josiah C.: *BRITISH MEDIAEVAL POPULATION*. Albuquerque: University of New Mexico Press, 1948, p. 160.

reason to believe that it subsequently disappeared. Certainly by Western humane standards, it is abhorrent. But it can be argued that it is also highly efficient. Unlike the practice of birth control, it does not require a long sequence of highly competent individual actions to avoid an event which on each occasion has only a low probability of occurring. Infanticide is a measure designed to alter a situation which has already happened, and requires a minimum of foresight and calculation. Moreover, unlike birth control, it permits selection of the type of offspring desired. Female infanticide, for example, will reduce fertility in the next generation while saving males for the labor force, and other types of selection are possible. Much the same effect can be produced by differential treatment of offspring, so that mortality is higher among some types of infants than among others. From a value-neutral perspective, infant mortality may in certain situations be highly functional. Even abortion has the advantage of coping with an unwanted contingency which has become highly probable. I think it rather unlikely that on the basis of Western experience, demographers would have foreseen the present Japanese pattern of abortion in advance.¹⁰ It is not inconceivable that elsewhere infanticide or infant mortality may come to play a similar role in the context of an urban, industrial society.

3. *Continuance of Present World Order.* Demographic analysis of the problems of underdeveloped areas almost always is developed in terms of fertility and mortality, with really large-scale migration or redistribution of present world resources excluded. The major exception to this statement is the perceptive treatment of these problems by Dr. Warren S. Thompson.¹¹ There has been enough offensive talk about the "yellow peril" and "rising tide of color" to make most demographers shy away from analysis of this prospect. Even entirely aside from values, if we do *not* assume a continuance of present world order, it is

¹⁰ For a description of the Japanese pattern of abortion, see Taeuber, Irene B.: *THE POPULATION OF JAPAN*. Princeton: Princeton University Press, 1958, pp. 275-8.

¹¹ Most recently in his *POPULATION AND PROGRESS IN THE FAR EAST*. Chicago: University of Chicago Press, 1959.

difficult to know what alternative assumptions to select. Nevertheless, we must face the fact that in the last analysis many demographic and economic differentials are maintained by military force, resting on superior organization and technology, which stands behind barriers to the free movement of populations. Really impermeable borders are by no means the rule in world history; if anything, they seem rather unstable. There is a real possibility that in the long-run, poverty and high fertility may displace wealth and restricted fertility, rather than the reverse which is expected. The probability of such an outcome cannot even be estimated without careful analysis of the extent of the demographic pressures which are likely to be generated in the course of the present century. We need empirical work which does not stop with the conclusion that fertility *must* fall in underdeveloped areas, even though the alternatives may be repugnant.¹²

4. *Mortality.* Perhaps most important of all is the question of mortality. We customarily assume that mortality will fall as rapidly as is technically feasible, and I have already touched on this issue. Not only do demographers assume that this is desirable, but we tend to regard it as inevitable. The issue is obscured by assertions that no government can successfully withhold available means of improved health from its people. Can it realistically be argued that there was effective demand on the part of the people of Ceylon for the DDT campaign which so dramatically reduced Ceylonese mortality?¹³ And will a *short-run* insistence on maximizing health and longevity at every point in time and space actually promote *long-run* improvement as successfully as a more flexible approach? Even as a moral issue, the answer is not inherently obvious.

But assuming that our aim is objective analysis, we cannot

¹² A recent example of even a political analysis by a demographer which virtually stops at this point is Philip M. Hauser's vice-presidential address for Section K of the American Association for the Advancement of Science: Demographic Dimensions of World Politics. *Science*, June 3, 1960, 131, No. 3414, pp. 1641-7.

¹³ Taeuber, Irene B.: Ceylon as a Demographic Laboratory. *Population Index*, October, 1949, 15, No. 4, pp. 293-304; Sarkar, N. K.: *THE DEMOGRAPHY OF CEYLON*. Colombo: Ceylon Government Press, 1957.

ignore the possibility that totalitarian regimes may choose to defer short-run gains in health and longevity in the interests of more successful long-run development. Precedent is provided by the Soviet assignment of a low priority to desired consumer's goods in the interests of more rapid industrialization. This occurred despite what I take to be a well nigh universal human value involving a preference for a *higher* standard of living as opposed to a *lower* standard of living. If Communist China, for example, were to defer rapid improvements in health until the means were available for a nearly simultaneous reduction in fertility, the pattern predicated by transition theory would be significantly altered. Although Kingsley Davis has noted that "a totalitarian government is less restricted by the predilections of the people. . . To eliminate undesired populations they have tended to rely upon increased mortality rather than lowered fertility."¹⁴ I have not been able to find in the demographic literature any serious analysis of the possibilities of a purely amoral and opportunistic policy toward mortality. I think such an analysis is needed. It would be a fatal flaw if the general theory of demographic change turned out to be valid only for societies oriented in a rather specific way to Western democratic and humanitarian values.

SOURCES OF VALUE COMMITMENTS IN DEMOGRAPHY

The foregoing illustrations have identified four issues of potentially major theoretical importance in which possible alternatives have been subjected to little exploration and analysis. If even one of them is found to be valid, the consequences would be important. In the space remaining, I would like to suggest some sources of intrusive values in demographic analysis.¹⁵

¹⁴ Population and the Further Spread of Industrial Society. *Proceedings of the American Philosophical Society*, February, 1951, 95, No. 1, p. 17.

¹⁵ The emphasis here has been on the possible importance of a particular culture in influencing demographic theory. It appears that humanistic values have had wide currency in the "high" civilizations of Europe and Asia for many centuries, and it is often difficult to separate personal adherence to such values from a quite objective con-

(Continued on page 393)

Demography is a highly quantitative discipline. Unlike many sociologists, demographers are generally averse to high-level theory, preferring to stay close to the specifics of quantitative data. The relative ease with which the demographic variables of fertility, mortality, and migration are operationalized lends an objective quality to demography not often enjoyed by other sociological specialties. Perhaps as a consequence, demographic thinking tends to be polarized into highly specific, detailed, empirical research and not very rigorous "common sense" broad theoretical interpretation. The difficulty which would-be critics of transition theory have experienced in determining the precise content of the theory is a reasonably clear example.¹⁶ The relative ease with which intrusive values are excluded from empirical research by the very procedures employed has made it less necessary for demographers to grapple with value problems in much of their day-to-day professional activity. Cultural relativism scarcely seems to be a pressing problem. Yet the nature of the market for the results of demographic research poses unusual problems.

First of all, historically, the development of demography has been intimately associated with actuarial work and with vital statistics. The consumers of such data are usually interested in improved health and human welfare. Much of the financial support for demography as a discipline has been related to an interest in public health on the part of governments and foundations. This interest is not only legitimate but highly commendable, and has brought about dramatic advances in human

viction that they will inescapably guide the actions of others. Another alternative explanation of the gaps in analysis suggested in this paper would be that they are the consequence of a conviction that industrialization, as a social and economic process, and Westernization, as a cultural process involving the diffusion of humanistic values, are empirically inseparable. While historically this conviction seems quite plausible, the structural necessity of an association of industrialization with humanistic values remains to be demonstrated. How much variability in value-systems is possible in the context of an industrial society is the master question to which virtually all of the issues raised in this paper can be related. Unfortunately, history does not provide even two statistically independent cases of industrialization for investigation.

¹⁶ van Nort, Leighton: *Biology, Rationality, and Fertility: A Footnote to Transition Theory*. *Eugenics Quarterly*, September, 1956, 3, No. 3, pp. 157-60, and references cited therein.

welfare. Nevertheless, as sociologists we would expect it to have latent consequences for emphases in demographic thinking, consequences less likely to be examined because the desirability of improving human welfare is so obvious.¹⁷

Second, the influence of demographers on public policy is not a purely one-way proposition. A body of theory such as transition theory is as much a theory of policy as a scientific theory. Research and analysis in such a context tends to be guided by the practical and the desirable. On the whole, I do not think there is very much "pure" research in demography, in the sense in which we speak of "pure" science, pursued without regard to applications. Yet as the history of other disciplines has demonstrated, "applied" research is not always the shortest route to the desired application.¹⁸

In conclusion, I believe that future progress in demographic theory will be promoted by analysis based on a wider variety

¹⁷ Thus, for example, Hauser, *op. cit.*, declares, "Although it is true that decreased death rates were largely responsible for the population explosion in the past and are foreseen to be a large factor in the future, the adoption of a policy to increase mortality, or to diminish efforts to increase longevity, is unthinkable." (p. 1646; emphasis supplied.)

Similarly, Notestein, "Abundant Life," *op. cit.*: "Rapid improvements in health are necessary for the effective utilization of modern technology, and useful as a first step in developing a national understanding of the need for modernization. These are, of course, the least of their virtues. The attainment of better health is an end in itself—if not the ultimate goal, at least one of the most important goals toward which we strive.

"It is these considerations which make the writer lose all patience with those who argue that *improvements in health may come too rapidly*. Fortunately there are few supporters of this position. Its thoughtlessness is shown by the fact that their concern about the dangers of improved health always relates to another population—not to their own. The idea that we should fail to support rapid improvement in public health in order to avoid a rate of population growth that spells catastrophe is in the same abysmal moral category as the doctrine of preventive war. In essence, it advocates tragedy now as a means of avoiding predicted tragedy in the future. The position is as *immoral* as it is unsound from an economic point of view." (Emphasis supplied.)

While arguments such as those in the final paragraph quoted have undoubted emotional appeal, their intellectual validity is rather dubious. The nub of the issue is the respective magnitudes of present and future tragedy, and the desirability of minimizing the sum of the two.

¹⁸ Of course, "pure" research questions cannot be pursued without data, and the bulk of the demographer's data is collected by agencies other than the scholar himself, usually agencies of government. Recognition of the unavoidable bias given to research by dependence on such data lends great importance to the deployment of private resources along different and balancing lines dictated by more intrinsic theoretical concerns.

of assumptions. Sociological analysis has revealed that many undesirable features of society come into existence or persist because they serve unrecognized functions. Much the same conclusion may emerge with regard to undesired demographic phenomena, as indeed is true already in certain areas not dealt with in this paper.¹⁹ As Robert Merton has demonstrated in another field of sociology,²⁰ major gains in understanding can follow from a close examination of patterns which scarcely meet with approval in terms of our personal values.

¹⁹ For example, the functional importance of high fertility from the point of view of individual families in high fertility areas has been analyzed by numerous writers.

²⁰ Merton, Robert K.: *Manifest and Latent Functions*. In *SOCIAL THEORY AND SOCIAL STRUCTURE*. Glencoe, Ill.: Free Press, 1949, pp. 71-81.

ANNOTATIONS

AND THE POOR GET CHILDREN

IN spite of the technical efficiency of modern contraceptive methods, in spite of their easy availability, and in spite of widespread public opinion favoring their use, a significant minority of American wives have had more pregnancies than they want. The incidence of excess fertility is greatest among the groups with the least education and the smallest incomes. These facts form the background of a pilot study of family planning practices and attitudes among urban working-class husbands and wives in the United States, conducted for the Planned Parenthood Federation of America.¹ A basic theme of this study is that the failure to avoid unwanted pregnancies is due largely to personal failure to use contraceptive methods consistently, and seldom to technical failures of the methods themselves. Therefore, the research focuses on the factors in the individual's personality and interpersonal relationships that spell success or failure in the control of fertility.

The data for the study come from depth interviews with 46 men and 50 women living in working-class residential areas of Cincinnati and Chicago. All respondents were married and living with their spouses; the men were under 45 years old and the women under 40. No attempt was made to interview both husband and wife in the same family; instead, the husbands and wives were independently chosen. The respondents were selected by the quota method. In most cases, men interviewed men and women interviewed women. Interview guides were used, rather than formal schedules, in order to encourage the respondents to talk freely about the various subjects intro-

¹ Rainwater, Lee, assisted by Weinstein, Karol Kane: *AND THE POOR GET CHILDREN*. Chicago: Quadrangle Books, 1960. pp. xiv + 202, \$3.95.

duced; verbatim replies were recorded. The interviews averaged two hours in length.

The first major independent variable discussed is the way in which the individual perceives his relation to the world. A world view that is consistent with successful family planning has two major features—a basic trust that the future is to some extent predictable and a belief that the individual can affect his future. However, many working-class people, the author claims, hold the opposing belief “that what happens in the world is determined mainly by external forces against which their own energies are not likely to be effective.” (p. 52) The latter view of the world seriously interferes with successful family planning.

Other attitudes that undermine successful family planning are that the use of contraception is an annoying interference with spontaneous sexual activity and that having only a few children is somehow unnatural. Women who have only one child are considered selfish; those who have many children are thought to be kind and generous. Furthermore, becoming a mother is highly important to the personal fulfillment of the working-class wife. It gives her status and purpose in life.

All of these attitudes delay the use of contraception, if they do not prevent it altogether. In the early stages of married life, working-class couples tend to “trust to luck” and do nothing to prevent pregnancy. As more children are born, the wife is generally the first to recognize the necessity for contraception, but often she has difficulty persuading her husband to go along with efforts to limit family size. Here we come to the second major independent variable used in this study—the relationship between husband and wife.

Many working-class husbands and wives have conflicting views and expectations of each other. The husband wants his wife to be a good mother and housekeeper who will take care of him without controlling him. The wife, on the other hand, has a strong need for receiving affection, which is not satisfied by mother and housekeeper roles, and which the husband often fails to recognize. She wants her husband to be a good lover, although the husband prefers to regard himself as a good father and provider. As a result of such conflicting expectations, working-class wives often see their husbands as controlling, unaffec-

tionate, and inconsiderate; husbands often see their wives as temperamental and demanding. When these tendencies are carried to extremes, serious conflict and estrangement characterize the marital relationship, and the cooperation and consideration necessary for the successful use of contraception are lacking.

The quality of the marital relationship comes to focus most sharply in sexual relations. Since it is also in the context of sexual relations that the decision to use contraception is made or not made, a considerable portion of the book is devoted to characterizing sexual relations as mutual, hostile, or ambivalent. The descriptions of these categories are amply illustrated by quotations from the interviews. The relevance of the emotional quality of the sexual relationship to success in family planning can be very briefly summarized as follows: When both husband and wife accept and enjoy their sexual relationship they are likely to use contraception effectively. When husband and wife express hostility in sexual relations (the typical situation is where the husband demands the wife's submission and the wife rejects sexuality and seeks to avoid intercourse), they are likely to be unsuccessful in preventing unwanted pregnancies. The reason for this correlation is that the successful use of contraception demands the constant and careful use of some method, and this, in turn, requires the cooperation of both husband and wife.

The mutuality-rejection continuum is related to socioeconomic status. In general, couples in the upper portion of the working class (i.e., the better paid and better educated) are more likely to have mutually satisfactory sexual relations than are couples in the lower portion of the working class.

In the final chapters, the author discusses how well informed the respondents are about the physiology of reproduction, and describes their feelings about various contraceptive methods. He recommends that physicians and clinics prescribe methods that their working-class patients can readily accept. He emphasizes the need to popularize simple methods that the wife can use (for example, the vaginal suppository). In the appendix Dr. Mary S. Calderone discusses the acceptability of contraceptive methods to their users.

In evaluating this book it is necessary to keep in mind the fact that it is a pilot study, and that the main purpose of a pilot study is to suggest lines of research that it might be profitable to follow. As the author points out in the introduction, "The study raises more questions than it answers; it simply begins the necessary exploration of what lies behind the descriptive facts of contraceptive use patterns." (p. 7) In view of this forward-looking orientation, I shall assume that there is a good possibility that further research will follow this study and suggest ways in which such research can improve on the pilot study that stimulated it.

In the first place, because we are dealing with a pilot study, we can overlook such infractions of good research design as the use of a sample that is too small and too narrowly chosen to allow us to place any confidence in the reliability of the findings. For the same reason, we may also overlook the vague definition of the universe under study—i.e., the urban working class. In a more systematic study the universe would surely be more precisely defined than it is here.

However, it is impossible to overlook the imprecise definition of the main dependent and independent variables. First of all the criteria for classifying couples as members of the upper-lower or lower-lower class are not at all clear. The classes are described in very general terms, but specific criteria are lacking. An adequate research design would include the systematic collection of data on occupation, income, job stability, and education, at least, and would use these variables either independently or in combination to give the concept of socioeconomic class more precision than it has in the present study.

Another variable that must be treated more systematically in any later research is effectiveness in family planning. The definitions of effectiveness and ineffectiveness used in this study are clearly unsatisfactory, as is suggested by the author's statement that the classification of respondents into these categories "represent interpretations based on the interview data." (p. 22) Effective users of contraception are those who "were using a contraceptive method properly and consistently at the time of interview." (p. 22) Ineffective users are those "who seemed not to use a contraceptive method at all or who described their

contraceptive practices in such a way as to suggest that they were using the method either improperly or sporadically." (p. 22) More precise definitions than these are needed for the most important dependent variable in the study. Examples of criteria that could be used either singly or in combination are the number of accidental pregnancies a couple has had, whether or not a couple has more children than desired, and whether contraception is used always or only part-time. With the use of the present guides, it would be possible to classify as an ineffective planner a young wife who has not borne all the children she wants and who has not yet begun to use contraception, even though she intends to use contraception in the future. At the other end of the planning scale, it would be possible to classify as an effective planner a wife who has borne several more children than she wanted and who is now using contraception consistently. The problems of classifying couples according to their effectiveness in controlling fertility deserves more thoughtful attention than has been given to them in this study.

Another important variable that requires more precise definition is the mutuality-rejection continuum that the author uses to describe the emotional quality of the sexual relationship. Again, the author tells us what he means by mutuality, ambivalence, and rejection in general terms, but he does not make explicit the criteria actually used to place respondents in these groups. I think that in this case a lack of precision is excusable in a pilot study that is designed more to seek out promising variables than to collect systematically the kind of information needed to classify respondents into already established groupings.

If the central concern of further research is the relationship of marital adjustment to success in family planning, it would be a good idea to interview husbands and wives from the same families rather than from different families. This is especially important because the findings of the pilot study suggest that husbands and wives tend to differ in their attitudes toward sexual relations and the use of contraception. An adequate picture of the relationship between these different viewpoints can best be obtained by interviewing both spouses in a family, rather than one spouse only.

A general deficiency of the pilot study that should be corrected in more thorough research is the lack of any systematic exploration of the relationship of success in family planning and of the mutuality-rejection continuum to age, duration of marriage, educational attainment, income, occupation, wife's labor force status, couple's farm background, and religious preference. Some of these variables have proved to be useful in analyzing fertility data in other studies, and they deserve more attention than has been given them in this study.

This highly readable book presents a consistent picture of the emotional factors involved in the relationship between sexual behavior and success in family planning. This topic is important enough to warrant investigation by more precise techniques than it was possible to use in a small and explorative pilot study. It is only through the scrutiny of careful and systematic research that adequate evidence can be found to test the hypotheses presented here. Until such research can be undertaken, the findings of this study will remain plausible guesses.

ARTHUR A. CAMPBELL

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